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Catalogue No. 7.—April 1st, 1892.

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ILLUSTRATED GENERAL CATALOGUE

No. 7.



INTERIOR CONDUIT AND INSULATION COMPANY, NEW YORK.

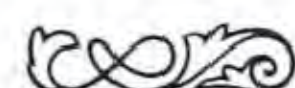
CAPITAL. - - - - - \$1,250,000.

EDWARD H. JOHNSON,
President.

E. W. LITTLE,
Vice-Pres. and Genl. Mgr.

F. A. MASON,
Secy. and Treas.

E. T. GREENFIELD
Electrician.



MANUFACTURERS OF

INTERIOR AND UNDERGROUND CONDUITS,
AND
NEW AND IMPROVED ELECTRIC LIGHT, HEAT AND POWER APPLIANCES.



GENERAL OFFICE AND SHOWROOMS, 42 & 44 BROAD STREET,
WORKS, NOS. 527, 529 & 531 WEST 34TH STREET, AND 526 & 528 WEST 35TH STREET,
NEW YORK.

AGENCIES.

9

With a view of promptly supplying the increasing demands of our customers, we have established supply depots in the principal commercial centers of the United States—the following well-known firms acting as our sole agents.

Requests for catalogues, discounts, and other information will receive prompt attention at their hands.

INTERIOR CONDUIT AND INSULATION CO., OF NEW YORK.

REPRESENTED BY

THOS. DAY & Co., 222 Sutter Street	SAN FRANCISCO, CAL.
MOUNTAIN ELECTRIC CO.	DENVER, COL.
AMERICAN ELECTRICAL SUPPLY CO., 226 Pearl Street	BUFFALO, N. Y.
PUTNAM, GAY & Co., 27 East Main Street	ROCHESTER, N. Y.
GLOVER ELECTRIC CO., 172 West 8th Street	CINCINNATI, OHIO.
CENTRAL ELECTRIC CO., 116 Franklin Street	CHICAGO, ILL.
SOUTHERN ELECTRIC MFG. AND SUPPLY CO., 110 Baronne Street	NEW ORLEANS, LA.
CHAS. GABRIEL	SAGINAW, MICH.
WALKER & KEPLER, 531 Chestnut Street	PHILADELPHIA, PA.
ELECTRICAL SUPPLY AND CONSTRUCTION CO.	PITTSBURGH, PA.
SOUTHERN ELECTRIC CO.	BALTIMORE, MD.
JOHN M. FOX, 73 Union Street	PORTLAND, ME.

TO PURCHASERS.

Prices Subject to Change without Notice.

Always use our Catalogue numbers and designate sizes when ordering.

Boxing and cartage charged at cost.

In ordering, please state how goods are to be shipped; if by freight or express give name of route.

We use the greatest care in packing, and our liability ceases when we have delivered goods to carrier and received receipt therefor.

Orders to be shipped C. O. D. from persons unknown to us must be accompanied by a sufficient amount to pay transportation charges.

Purchasers having no account with us must send cash with the order, or satisfactory references to justify us in opening an account.

Accounts payable 30 days from date of invoice, and subject to sight draft without notice after that date.

In ordering Tube and Fittings, the proper amount of Fittings bears about the following ratio to the Tube.

Three Couplings to every ten feet of Tube.

Four Elbows to every thirty feet of Tube.

Fifteen Clips to every thirty feet of Tube.

The number of Main Line Junction, Feeder and other Boxes can only be determined by actual count and the arrangement of the circuits.

Small quantities of Compound, for sealing Tubes in Junction Boxes, Soapstone and Fishing Wire should always accompany every order.

Correspondence in regard to special designs or sizes of our goods solicited.

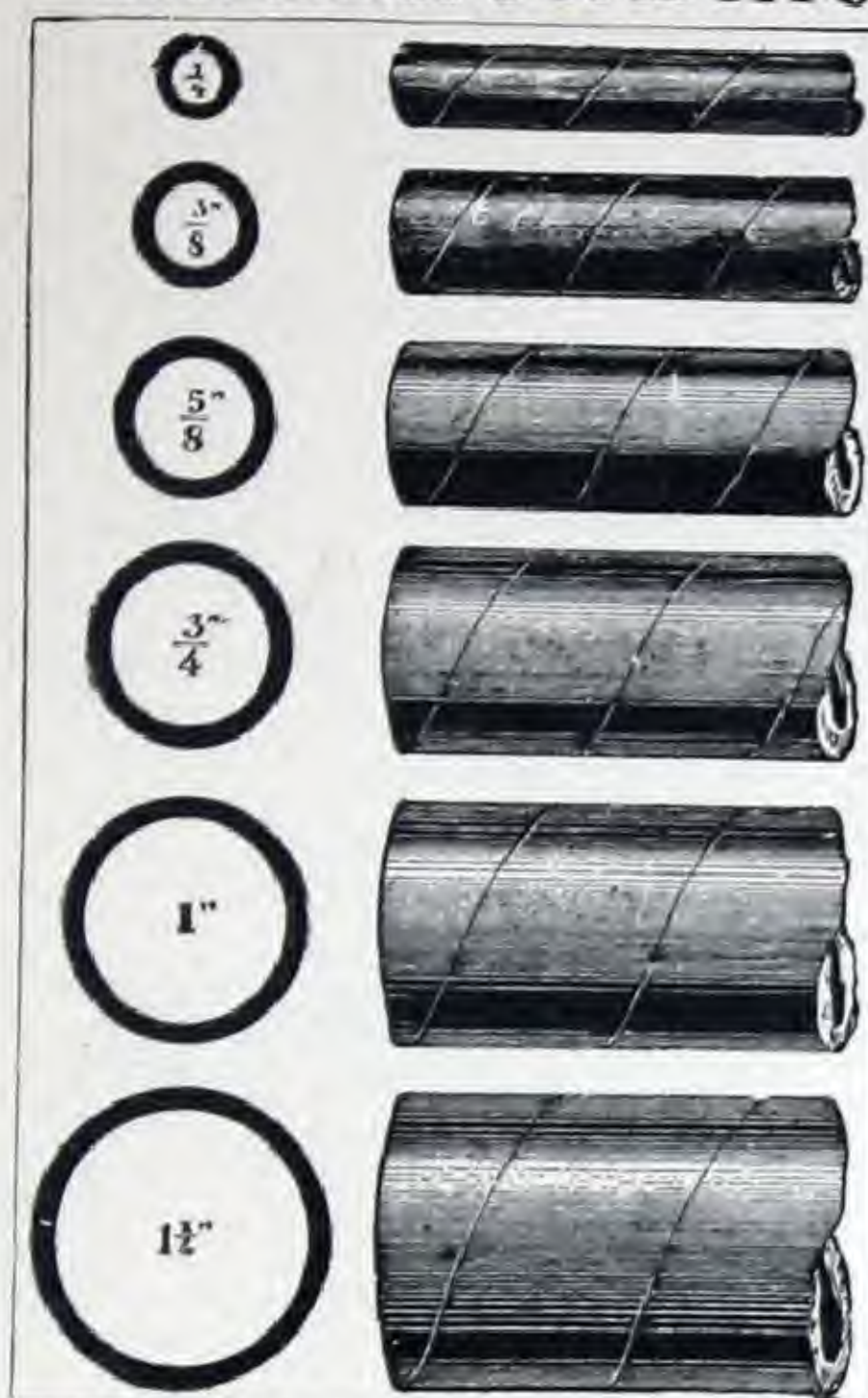
Department A.



CONDUIT TUBES,
ELBOWS,
JUNCTION BOXES,
BRANCH BOXES,
COUPLINGS,

COUPLING TOOLS,
CLIPS,
STAPLES,
WIRE,
ETC., ETC.

INTERIOR CONDUITS



TRADE-MARK.

Plain Conduit.

SIZE				PRICE
$\frac{1}{4}$ inside diameter	Grade 1	per 100 feet	\$2 25	
$\frac{5}{16}$ " "	"	"	2 25	
$\frac{3}{8}$ " "	"	"	2 75	
$\frac{1}{2}$ " "	"	"	3 25	
$\frac{5}{8}$ " "	"	"	3 75	
$\frac{3}{4}$ " "	"	"	4 25	
1 " "	"	"	5 25	
1 $\frac{1}{4}$ " "	"	"	8 00	
1 $\frac{1}{2}$ " "	"	"	12 50	
2 " "	"	"	20 00	
2 $\frac{1}{2}$ " "	"	"	32 00	

$\frac{1}{4}$ size in Six Foot Lengths. All other sizes in Ten Foot Lengths.

Our Interior Conduit System has now become the accepted standard for the electric wiring of all systems of electric lighting.

Our Plain Conduit has been so greatly improved both in the quality of material employed and in the process of manufacture, as to render it entirely acceptable for all work where destructive alkalies or open air fire channels do not demand the metal sheathing protection.

All the manifold appliances such as couplings, elbows, junction boxes, etc., have been reduced to a common interchangeable standard, thus eliminating the chance of dead stock.

All tubes and elbows are cut squarely, thoroughly reamed and tested for obstructive matter by passing a test line through them, thus reducing labor of installation and waste material to a minimum.

Our steadily increasing output has enabled us to bring the price of this system within the compass of factory and other low grade work, where cheap methods have hitherto been in vogue, thus rendering available to all classes and grades of electric lighting the factors of Safety, Reliability and Neatness.

Brass Armored Conduit.



Price List.

SIZE												PRICE
$\frac{5}{16}$	inside diameter, per hundred feet	.	.	.	.	.	.	.	.	.	.	\$ 4 95
$\frac{3}{8}$	" " " " "	.	.	.	.	.	.	.	.	.	.	5 68
$\frac{1}{2}$	" " " " "	.	.	.	.	.	.	.	.	.	.	6 88
$\frac{5}{8}$	" " " " "	.	.	.	.	.	.	.	.	.	.	7 90
$\frac{3}{4}$	" " " " "	.	.	.	.	.	.	.	.	.	.	9 28
1	" " " " "	.	.	.	.	.	.	.	.	.	.	12 22
$1\frac{1}{4}$	" " " " "	.	.	.	.	.	.	.	.	.	.	14 95

This is our Plain Conduit, with a brass armor or covering drawn upon it. We furnish this tube for better protection against mechanical injury and the destructive action of the alkalies of cement, where used under tile floors or in like exposed places. When polished it will be found *unequalled for surface work* in the matter of finish and accessibility. It is also frequently required in situations peculiarly liable to heat and fire from external sources.

Brass Sheathed Junction Boxes and appliances to correspond are also provided, so that an entire sheathed or armored conduit system may be installed if desired.

In the above price list for Brass Armored Conduit, we have added to the price of Plain Conduit only the bare cost of the metal and labor used in covering, including no charges for expense or profit. We have done this for the sole purpose of encouraging and extending the use of Armored Conduit. In calculating the comparative cost, our customers are reminded to take into consideration the fact that no allowance need be made on Armored Conduit for waste or breakage, which fact keeps the cost very near to that of the Plain Conduit.

Its advantages are manifold and immediately apparent. It is FIRE and ALKALI proof and practically indestructible.

Elbows, Tees, Etc.

No. 110,
Standard Short
Elbow.

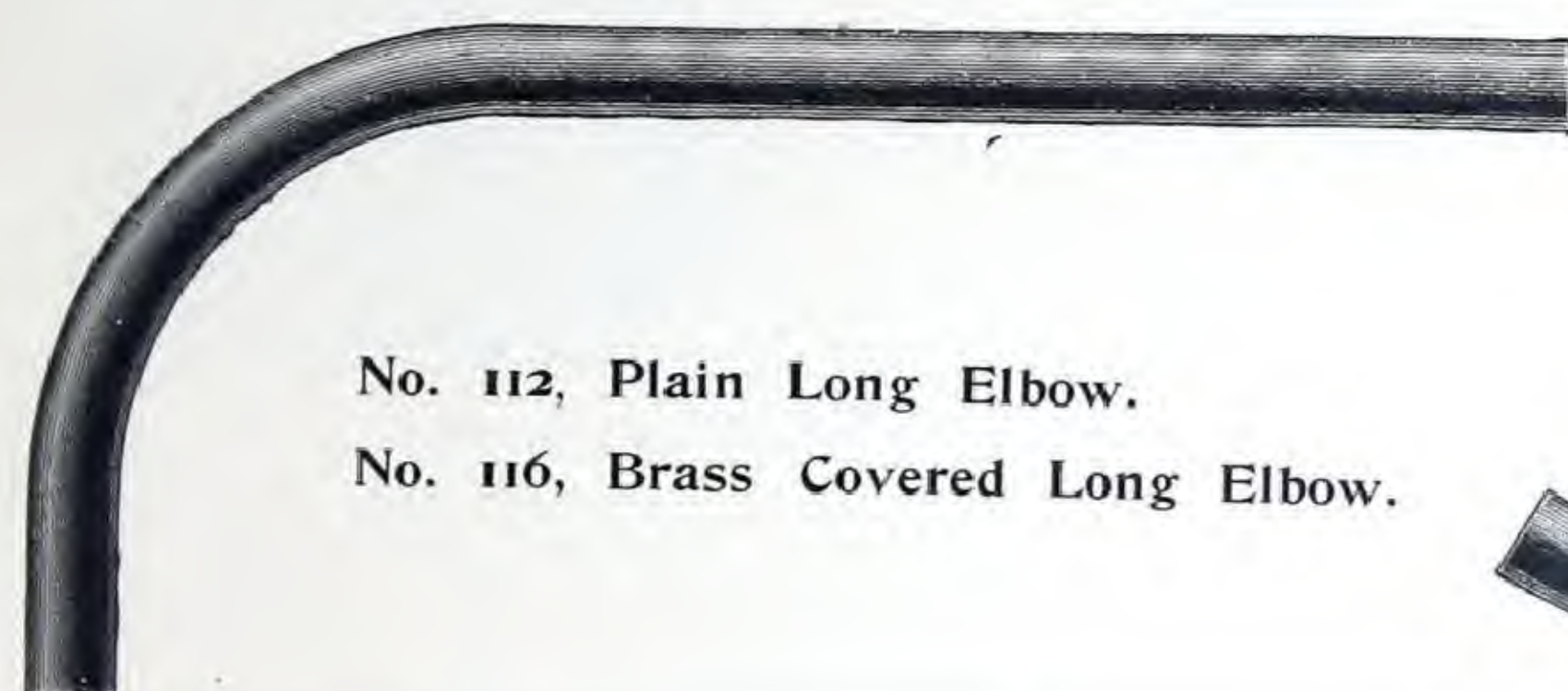


No. 114,
Metal Covered
Elbow.

SIZE				No. 110	per 100	PRICE
1/4	inch inside diameter					\$5 50
5/8	"	"	"	"	"	5 50
3/8	"	"	"	"	"	5 60
1/2	"	"	"	"	"	6 75
5/8	"	"	"	"	"	7 50
3/4	"	"	"	"	"	10 00
1	"	"	"	"	"	13 00
1 1/4	"	"	"	"	"	25 00
1 1/2	"	"	"	"	"	47 00

SIZE				No. 114	per 100	PRICE
1/4	inch inside diameter					\$6 60
5/8	"	"	"	"	"	8 00
3/8	"	"	"	"	"	10 20
1/2	"	"	"	"	"	11 80
5/8	"	"	"	"	"	15 60
3/4	"	"	"	"	"	27 85
1	"	"	"	"	"	38 35
1 1/4	"	"	"	"	"	

Larger Sizes Furnished to Order.

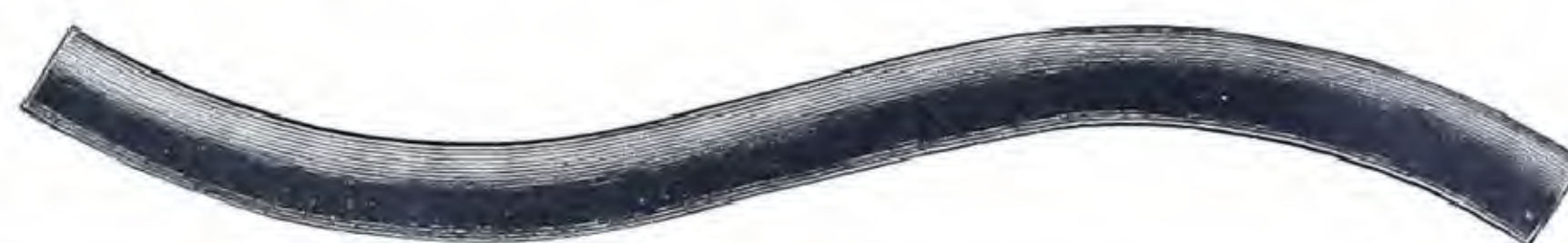


No. 112, Plain Long Elbow.

No. 116, Brass Covered Long Elbow.

No. 113, Plain S Elbow.

No. 117, Brass Covered S Elbow.



LONG ELBOWS				No. 112 PLAIN	No. 116 BRASS COVERED	S ELBOWS				No. 113 PLAIN	No. 117 BRASS COVERED
SIZE				PRICE	PRICE	SIZE				PRICE	PRICE
1/4	inch inside diameter, per 100			\$15 50	....	1/4	inch inside diameter, per 100			\$15 25	....
5/8	"	"	"	16 00	\$16 00	5/8	"	"	"	15 75	\$15 75
3/8	"	"	"	17 75	17 75	3/8	"	"	"	17 25	17 25
1/2	"	"	"	18 75	18 75	1/2	"	"	"	20 00	20 00
5/8	"	"	"	19 75	20 25	5/8	"	"	"	22 50	22 50
3/4	"	"	"	21 75	26 25	3/4	"	"	"	27 50	27 50
1	"	"	"	25 00	41 00	1	"	"	"	34 00	34 00
1 1/4	"	"	"	32 50	55 00	1 1/4	"	"	"	50 00	50 00



No. 111, Plain T or Double Elbow.

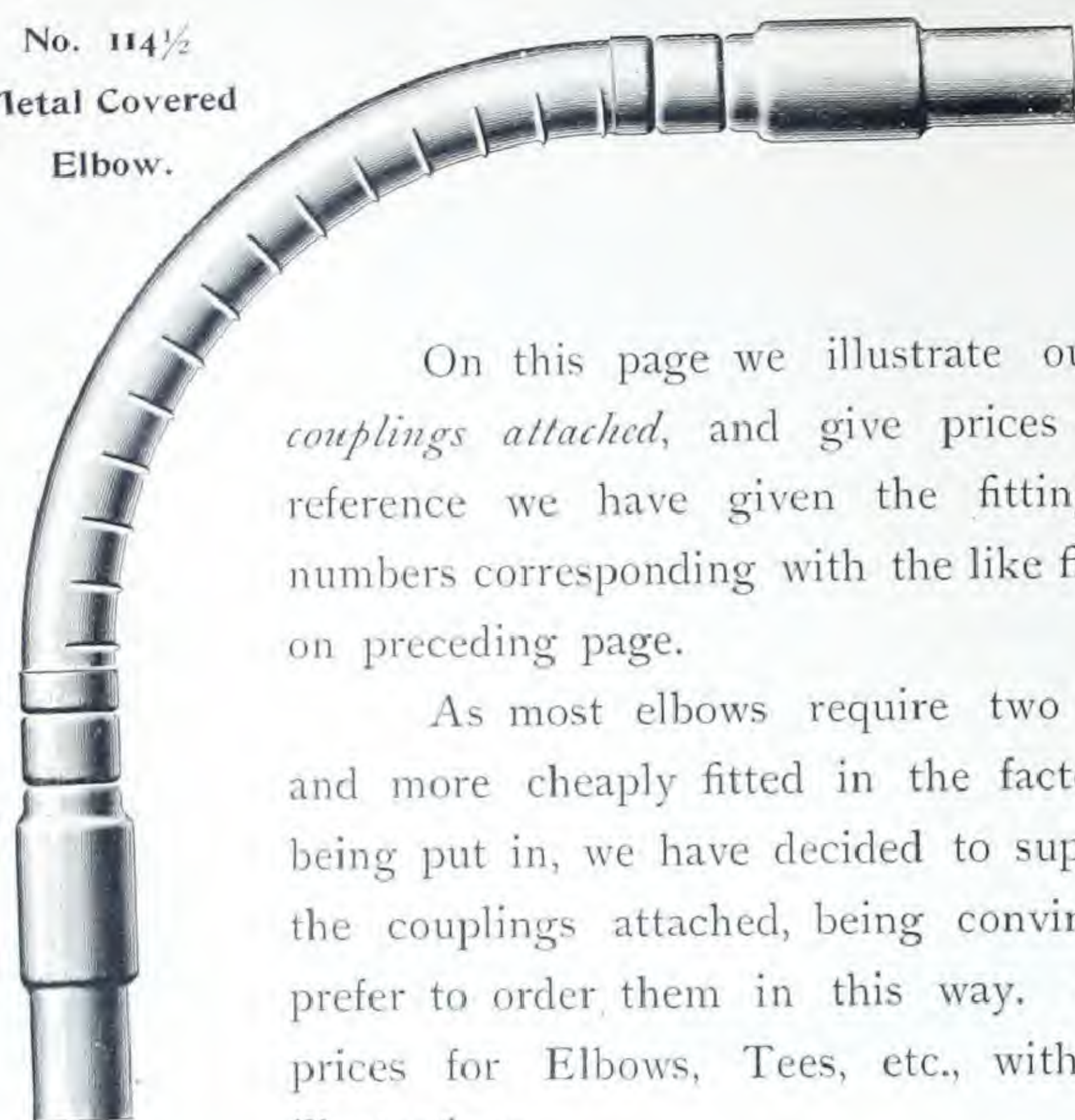
No. 115, Brass Covered T or Double Elbow.

T OR DOUBLE ELBOW						No. 111 PLAIN	No. 115 BRASS COVERED
						PRICE	PRICE
Mains	SIZE	inch,	Branch	1/4 inch,	per 100	\$16 25	....
"	1/8	"	"	1/8	"	16 50	\$72 00
"	3/8	"	"	3/8	"	17 75	75 00
"	1/2	"	"	1/2	"	18 75	78 00
"	5/8	"	"	5/8	"	20 25	90 00
"	3/4	"	"	3/4	"	25 00	100 00
"	1	"	"	1	"	35 00	122 00

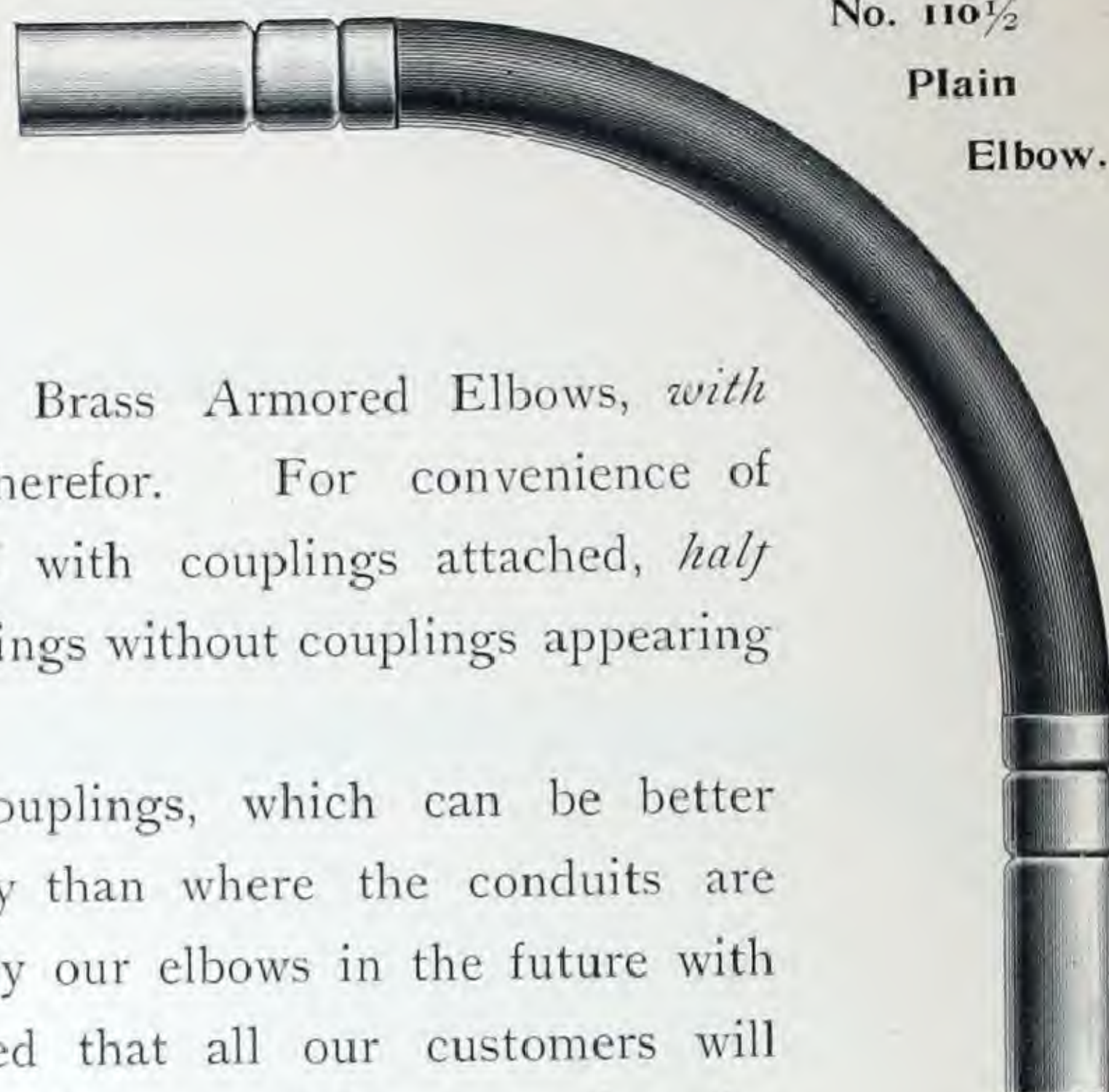
Plain and Brass Armored Elbows, Tees, Etc.

With Attached Couplings.

No. 114½
Metal Covered
Elbow.



No. 110½
Plain
Elbow.



On this page we illustrate our Brass Armored Elbows, *with couplings attached*, and give prices therefor. For convenience of reference we have given the fittings with couplings attached, *half* numbers corresponding with the like fittings without couplings appearing on preceding page.

As most elbows require two couplings, which can be better and more cheaply fitted in the factory than where the conduits are being put in, we have decided to supply our elbows in the future with the couplings attached, being convinced that all our customers will prefer to order them in this way. In the lists below we give the prices for Elbows, Tees, etc., with couplings attached, as per our illustrations.

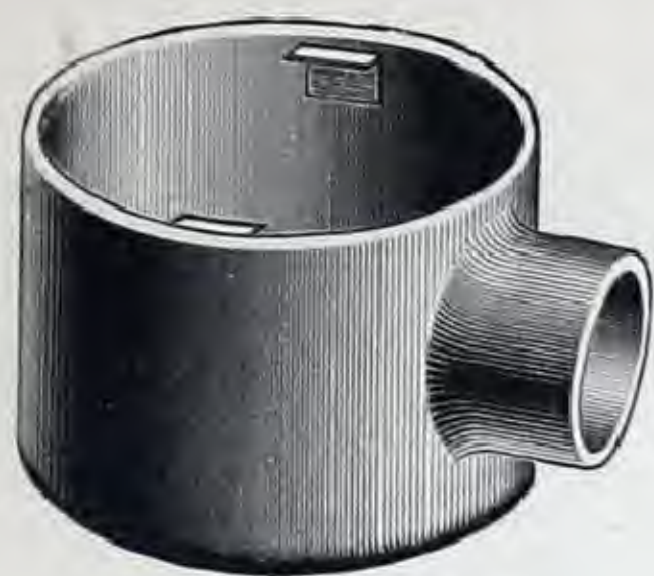
Price List.

SHORT ELBOWS WITH ATTACHED COUPLINGS					No. 110½ PLAIN	No. 114½ BRASS COVERED	S ELBOWS WITH ATTACHED COUPLINGS					No. 113½ PLAIN	No. 117½ BRASS COVERED
SIZE					PRICE	PRICE	SIZE					PRICE	PRICE
¼ inch inside diameter, per 100					\$13 30	.....	¼ inch inside diameter, per 100					\$23 00	.....
⅝ " " " "					13 30	\$18 70	⅝ " " " "					23 60	\$20 50
⅞ " " " "					13 50	21 50	⅞ " " " "					25 50	23 50
1 " " " "					16 00	25 60	1 " " " "					29 00	29 25
1 ⅜ " " " "					18 50	30 00	1 ⅜ " " " "					31 00	32 50
1 ½ " " " "					22 00	43 00	1 ½ " " " "					39 75	47 75
1 ¾ " " " "					30 00	63 00	1 ¾ " " " "					50 00	62 50
I " " " "							I " " " "						

LONG ELBOWS WITH ATTACHED COUPLINGS					No. 112½ PLAIN	No. 116½ BRASS COVERED	TEES WITH ATTACHED COUPLINGS.					No. 111½ PLAIN	No. 115½ BRASS COVERED
SIZE					PRICE	PRICE	SIZE					PRICE	PRICE
¼ inch inside diameter, per 100					\$23 50	.....	Mains ⅝ inch, Branch ¼ inch, per 100					\$26 25	.....
⅝ " " " "					24 00	\$24 00	" ⅜ " " " "					27 90	\$90 75
⅞ " " " "					25 75	27 50	" ½ " " " "					28 75	95 00
1 " " " "					28 00	33 00	" ⅝ " " " "					29 50	100 00
1 ⅜ " " " "					30 00	38 50	" ⅝ " " " "					32 25	114 00
1 ½ " " " "					34 00	53 50	" ¾ " " " "					34 50	132 00
1 ¾ " " " "					41 00	76 50	" I " " " "					41 00	167 00
I " " " "													

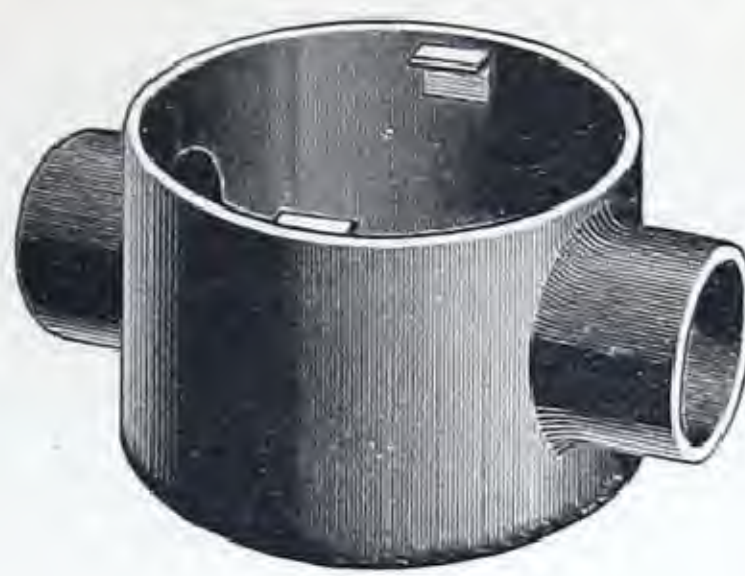
General Offices and Show Rooms, 42 & 44 Broad St. Works, 527, 529 & 531 West 34th St., and 526 & 528 West 35th St.

Branch Circuit Junction Boxes.—Plain and Brass Covered.



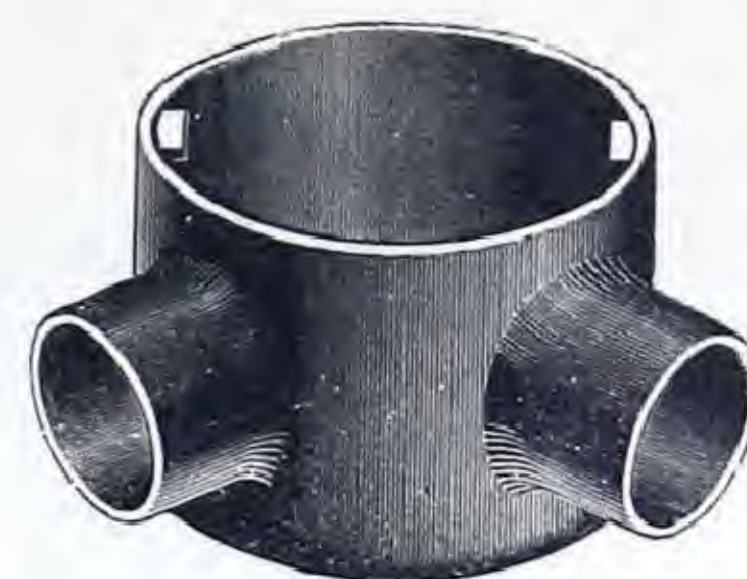
No. 46.

No. 46, $\frac{3}{8}$ or $\frac{1}{2}$ branches, plain 30c.
Same, Brass covered 50c.



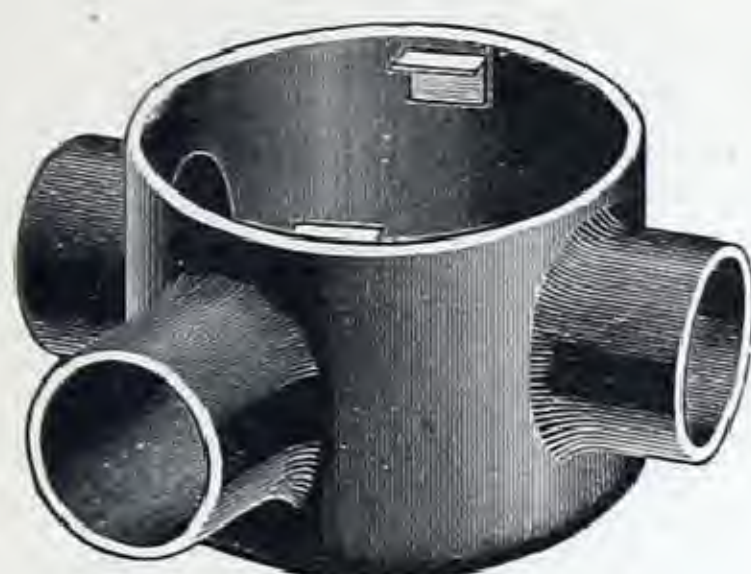
No. 40.

No. 40, $\frac{3}{8}$, $\frac{1}{2}$ or $\frac{5}{8}$ branches, plain 33c.
Same, Brass covered 55c.



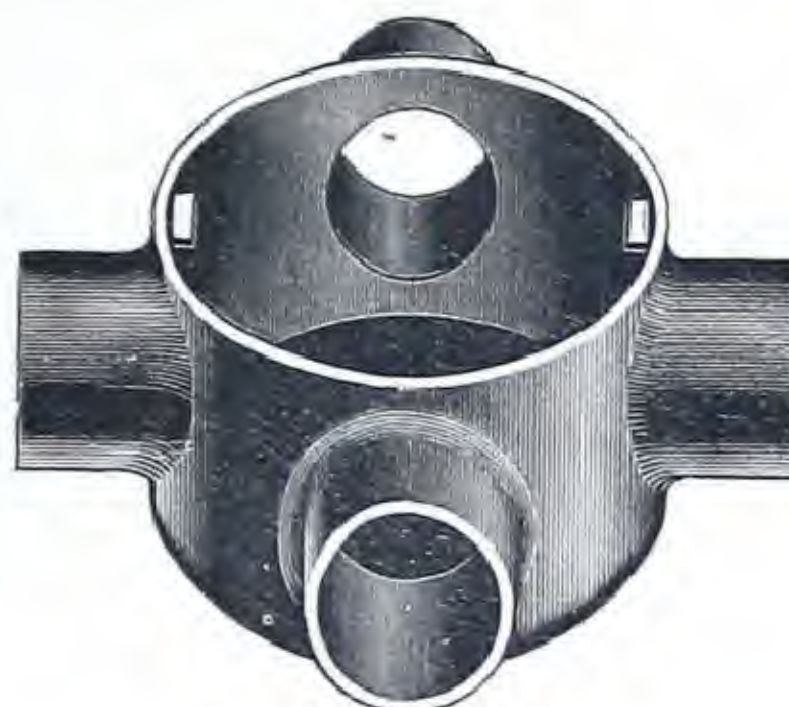
No. 42.

No. 42, $\frac{3}{8}$, $\frac{1}{2}$ or $\frac{5}{8}$ branches, plain 33c.
Same, Brass covered 55c.



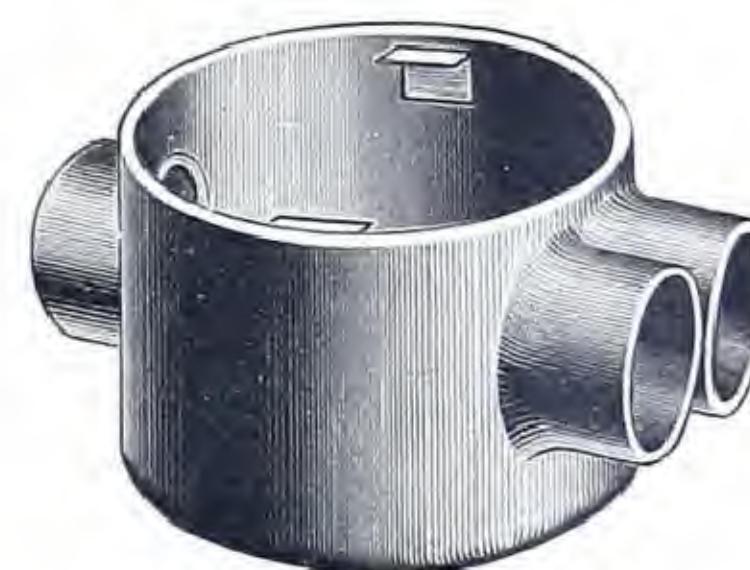
No. 41.

No. 41, $\frac{3}{8}$, $\frac{1}{2}$ or $\frac{5}{8}$ branches, plain 35c.
Same, Brass covered 55c.



No. 47.

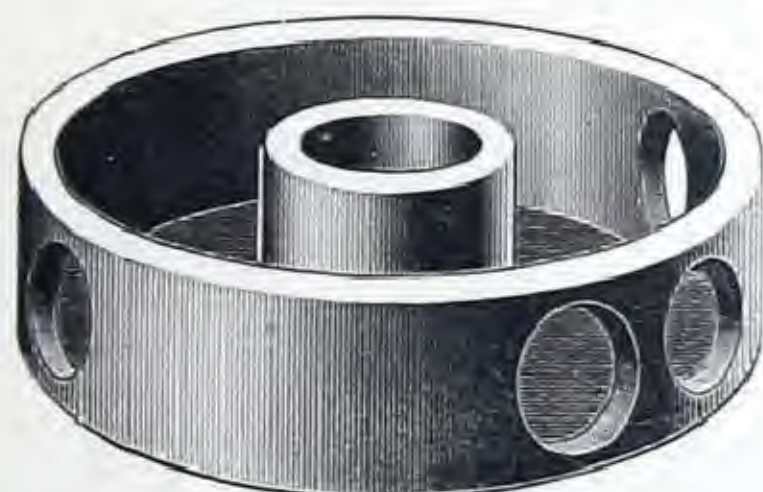
No. 47, $\frac{3}{8}$, $\frac{1}{2}$ or $\frac{5}{8}$ branches, plain 38c.
Same, Brass covered 60c.



No. 49.

No. 49, $\frac{3}{8}$, $\frac{1}{2}$ or $\frac{5}{8}$ branches, plain 40c.
Same, Brass covered 65c.

Combination Gas and Electric Conduit Outlet Boxes.

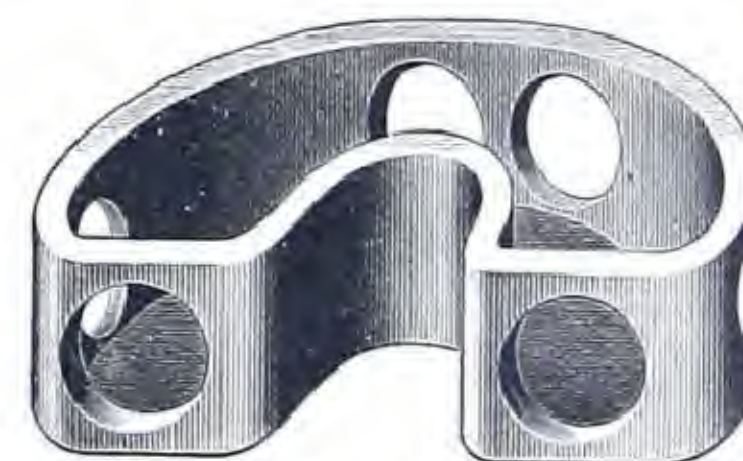


No. 75.

No. 75, for Straight Gas Outlets 40c.

Designed to provide a practical and handy receptacle for bringing out and connecting the wires from Conduit Tubes at Gas outlets for Combination Fixtures.

Prices.—Plain, not Brass Covered.



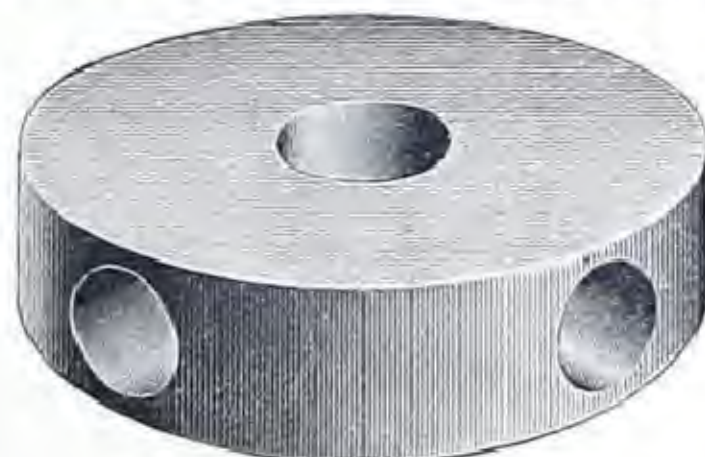
No. 76.

No. 76, for Elbow gas Outlets 50c.

Conduit Outlet Blocks.



No. 575.



No. 577.



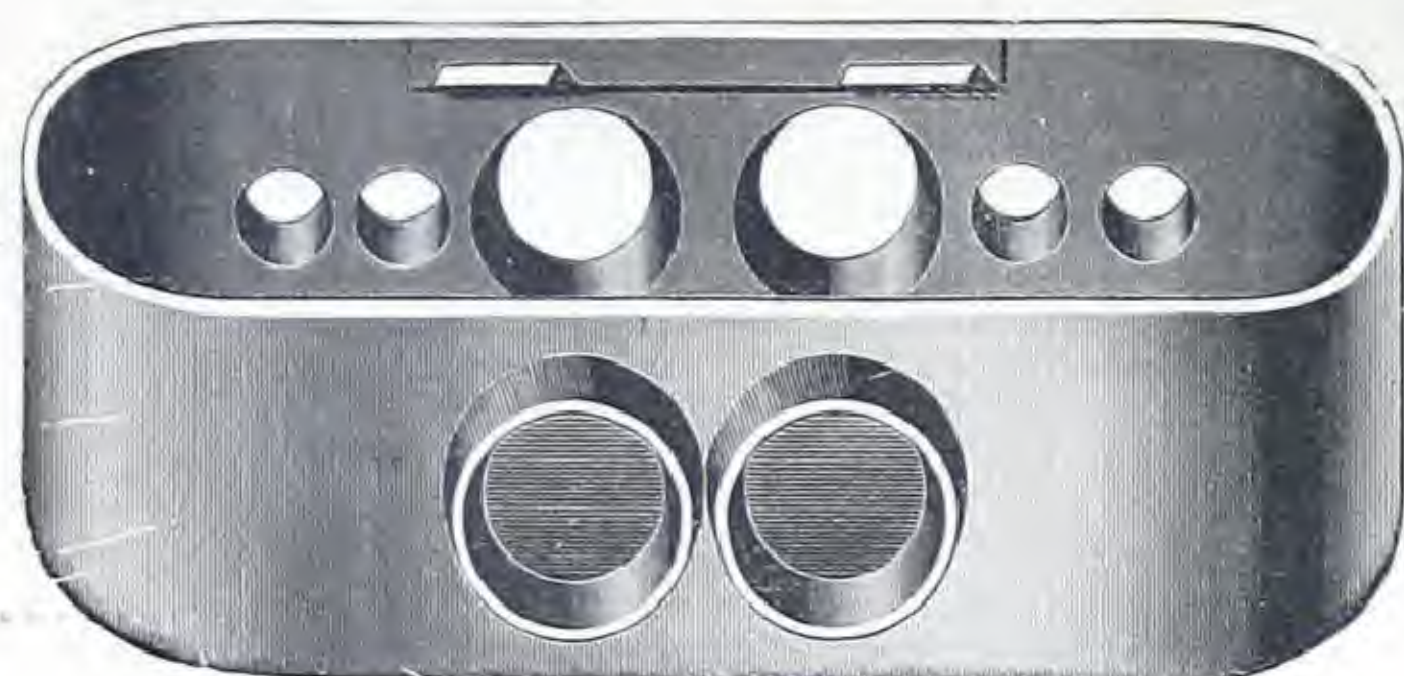
No. 579.

Where Outlet Blocks are desired for Electric (not Combination) Fixtures, the above will be found very useful and handy. The Conduit Tubes are entered at the side holes, and the Wires brought out of the top hole. The Fixtures can be fastened directly in the Block, and Cut-outs mounted on same. Regular size, diameter 3 inches, side holes $\frac{3}{8}$ inch. Other sizes to order.

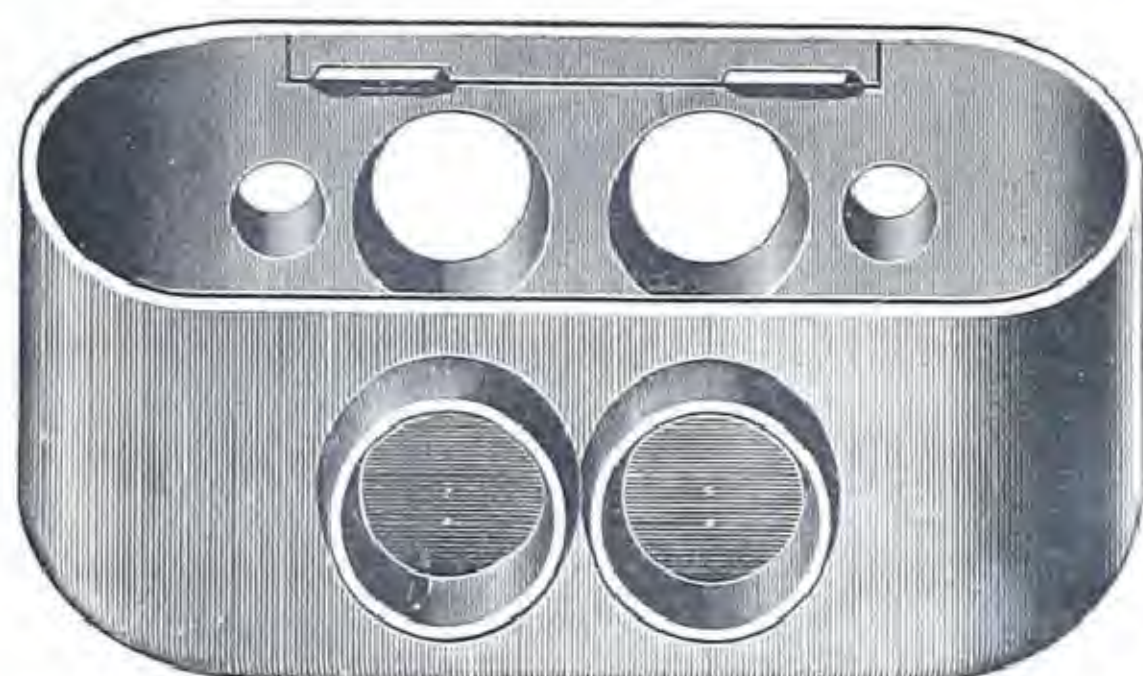
No. 575,	Conduit Outlet Block, Straight way, Maple, plain, per 100	.....	\$18 00
" 577,	" " " Corner " " " " " " " " " " " "	.....	18 00
" 579,	" " " Parallel " " " " " " " " " " " "	.....	18 00

Main Line Junction Boxes.

Two Wire System.



No. 1,	Four Circuit Main Line, for Brick, plain	\$1 35
" 10,	" " " " Lath and Plaster, plain	1 50

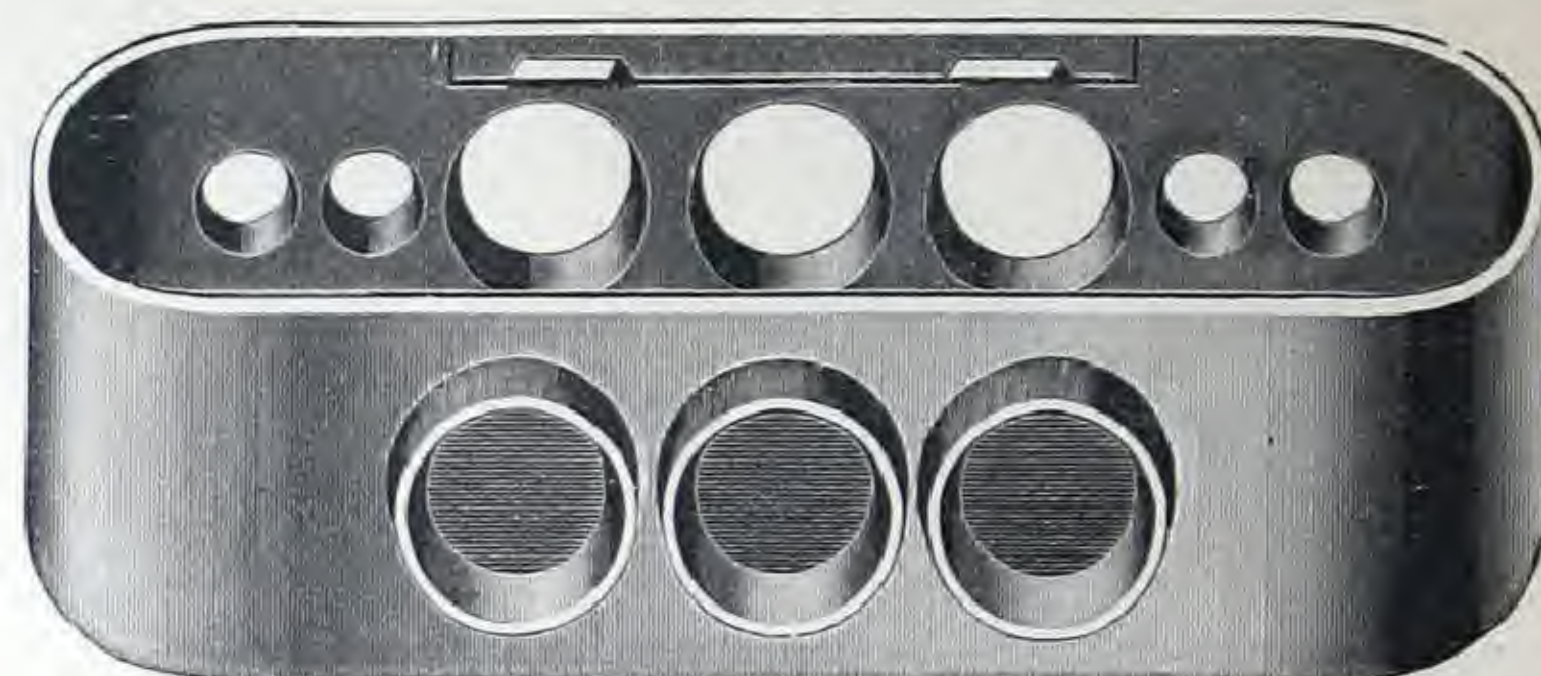


No. 2,	Two Circuit Main Line, for Brick, plain	\$1 15
" 11,	" " " " Lath and Plaster, plain	1 30

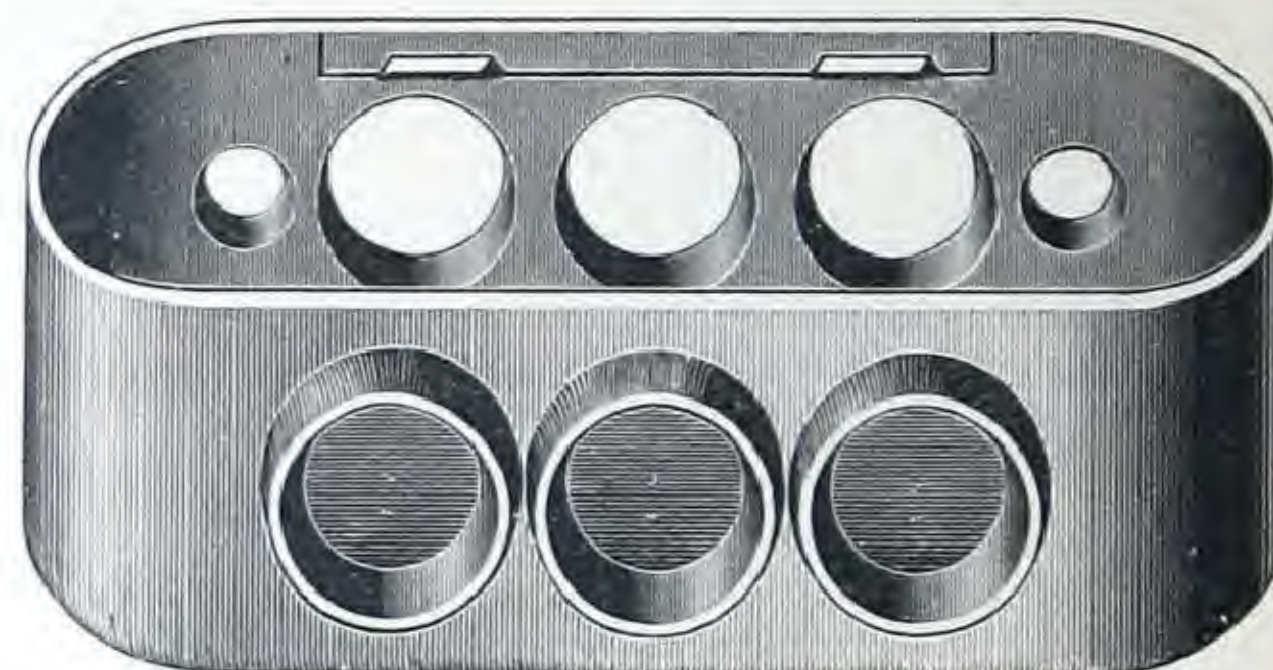


No. 7,	Four Circuit Main Line, for Brick, plain	\$1 35
" 14,	" " " " Lath and Plaster, plain	1 50

Three Wire System.



No. 20, Four Circuit Main Line, for Brick, plain	\$1 40
" 30, " " " " Lath and Plaster, plain	1 60



No. 21,	Two Circuit Main Line, for Brick plain	\$1 30
" 31,	" " " " Lath and Plaster, plain	1 40

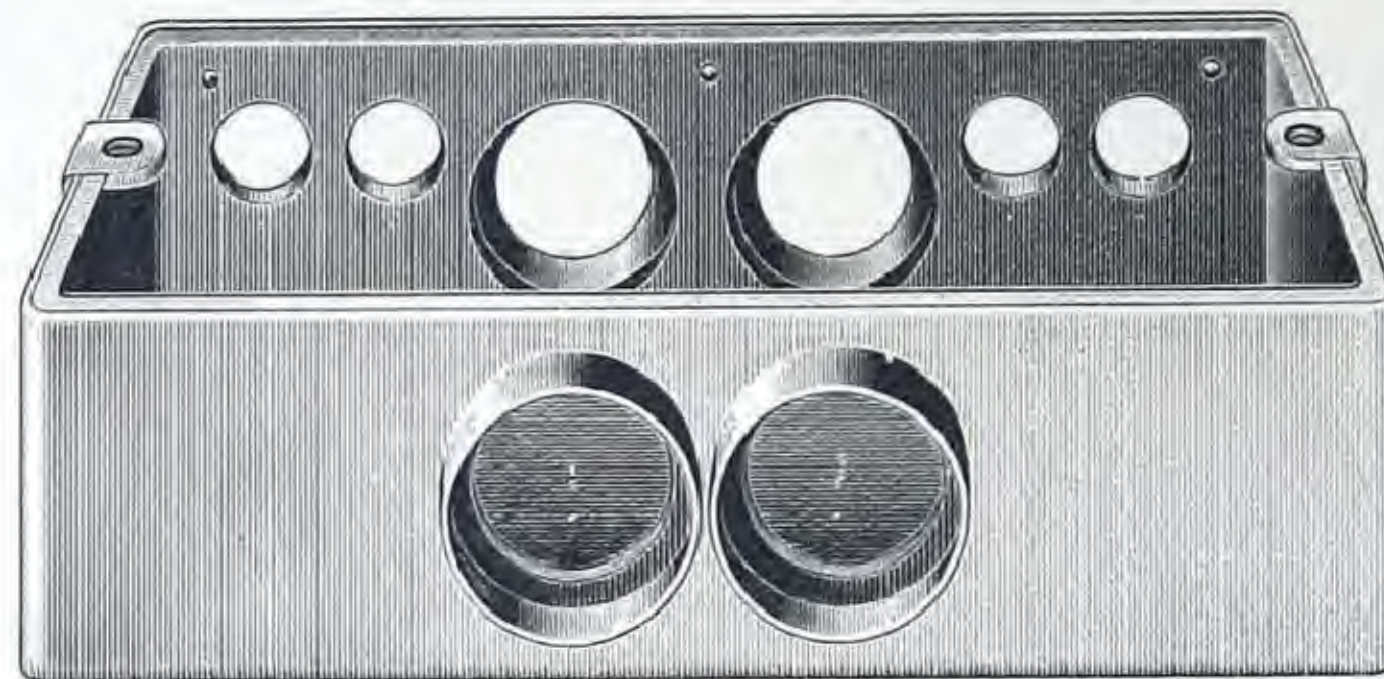


No. 24,	Four Circuit Main Line, for Brick 'plain	\$1 40
" 34,	" " " " " Lath and Plaster, plain	1 60

Dimensions of Plain Main Line Junction Boxes.

No.	1,	Length, $8\frac{5}{8}$	inches.	Width, $3\frac{7}{8}$	inches.	Depth, 3	inches.	No.	20,	Length, $10\frac{3}{8}$	inches.	Width $3\frac{7}{8}$	inches.	Depth, 3	inches		
"	10,	"	$8\frac{5}{8}$	"	"	$3\frac{7}{8}$	"	"	30,	"	$10\frac{3}{8}$	"	"	$3\frac{7}{8}$	"	$3\frac{3}{4}$	"
"	2,	"	$7\frac{1}{2}$	"	"	$3\frac{7}{8}$	"	"	21,	"	$8\frac{5}{8}$	"	"	$3\frac{7}{8}$	"	3	"
"	11,	"	$7\frac{1}{2}$	"	"	$3\frac{7}{8}$	"	"	31,	"	$8\frac{5}{8}$	"	"	$3\frac{7}{8}$	"	$3\frac{3}{4}$	"
"	7,	"	$8\frac{5}{8}$	"	"	$3\frac{7}{8}$	"	"	24,	"	$10\frac{3}{8}$	"	"	$3\frac{7}{8}$	"	3	"
"	14,	"	$8\frac{5}{8}$	"	"	$3\frac{7}{8}$	"	"	34,	"	$10\frac{3}{8}$	"	"	$3\frac{7}{8}$	"	$3\frac{3}{4}$	"

Unless otherwise specified in orders, we furnish above boxes for one inch Main and three-eighth inch Branch Conduits.
Junction Boxes for Brick Work have the upper rim of holes parallel and $\frac{1}{4}$ inch from rim of box.
“ “ “ Lath and Plaster “ “ “ “ “ “ “ “ “ “ “ “ “ “ “ “



No. 201,	Four	Circuit Main Line, for Brick or Surface work	\$5 50
" 210,	"	" " " " Lath and Plaster work	5 50
" 202,	Two	" " " " Brick or Surface work	4 85
" 211,	"	" " " " Lath and Plaster work	4 85
" 203,	Four	" " " " Terminal, for Brick or Surface work	4 75
" 212,	"	" " " " " " Lath and Plaster work	4 75
" 204,	Two	" " " " " " Brick or Surface work	4 00
" 213,	"	" " " " " " Lath and Plaster work	4 00

No. 220,	Four	Circuit	Main	Line,	for	Brick	or	Surface	work	\$6 65
" 230,	"	"	"	"	"	Lath	and	Plaster	work	6 65
" 221,	Two	"	"	"	"	Brick	or	Surface	work	5 90
" 231,	"	"	"	"	"	Lath	and	Plaster	work	5 90
" 222,	Four	"	"	Terminal,	for	Brick	or	Surface	work	5 75
" 232,	"	"	"	"	"	Lath	and	Plaster	work	5 75
" 223,	Two	"	"	"	"	Brick	or	Surface	work	4 75
" 233,	"	"	"	"	"	Lath	and	Plaster	work	4 75

No. 290, Left Hand, for Brick or Surface work	.	.	.	\$4 85
" 291, Right " " " "	.	.	.	4 85
" 292, Left " " Lath and Plaster work	.	.	.	4 90
" 293, Right " " " "	.	.	.	4 90

No. 294, Left Hand, for Brick or Surface work	.	.	\$5 90
" 295, Right " " " "	.	.	5 90
" 296, Left " " Lath and Plaster work	.	.	5 95
" 297, Right " " " "	.	.	5 95

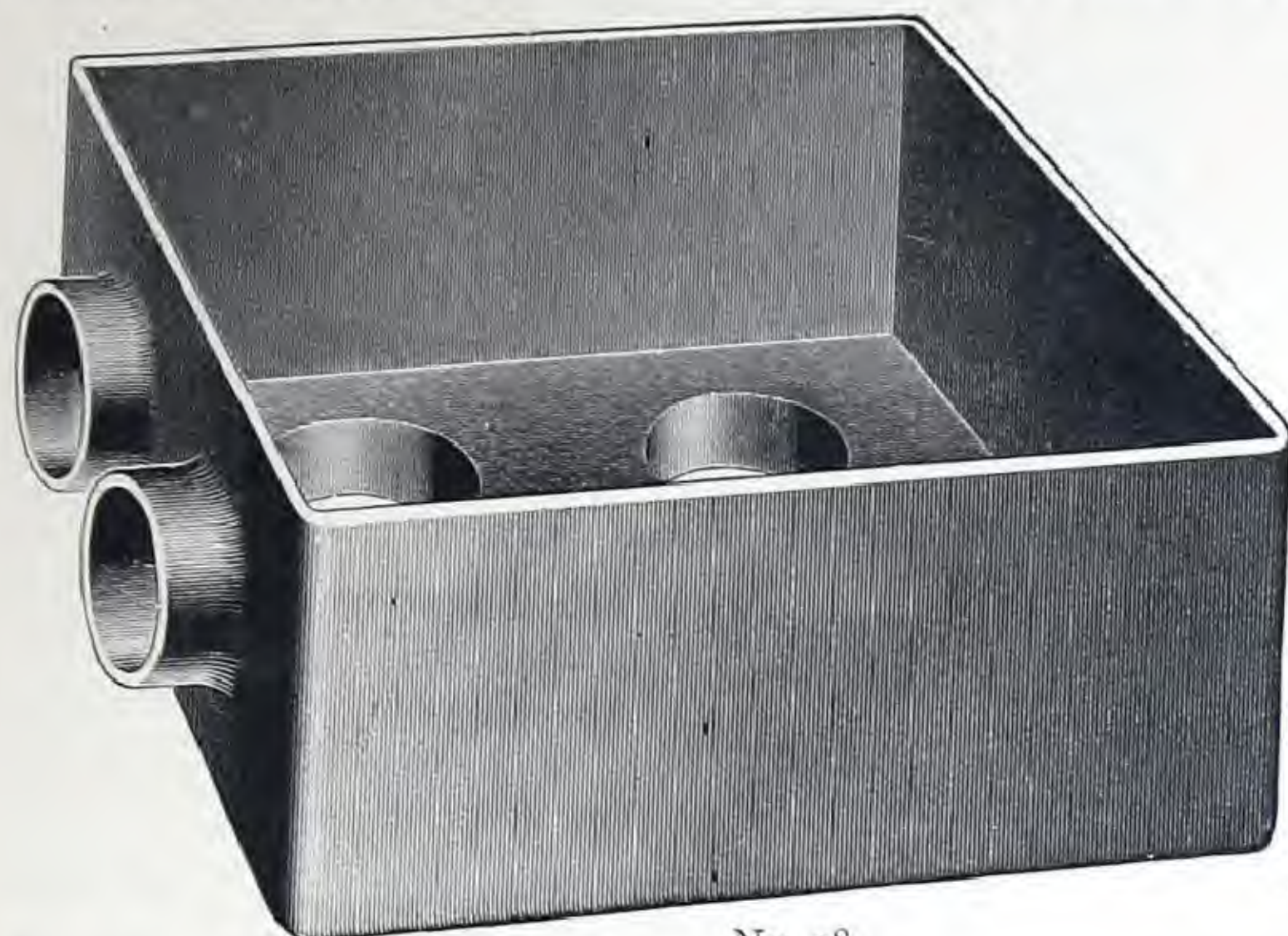
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INTERIOR CONDUIT AND INSULATION COMPANY, NEW YORK.—DEPARTMENT A.

Dimensions of all the Boxes
on this page: $6\frac{1}{2} \times 6\frac{1}{2} \times 2\frac{3}{4}$ inches.

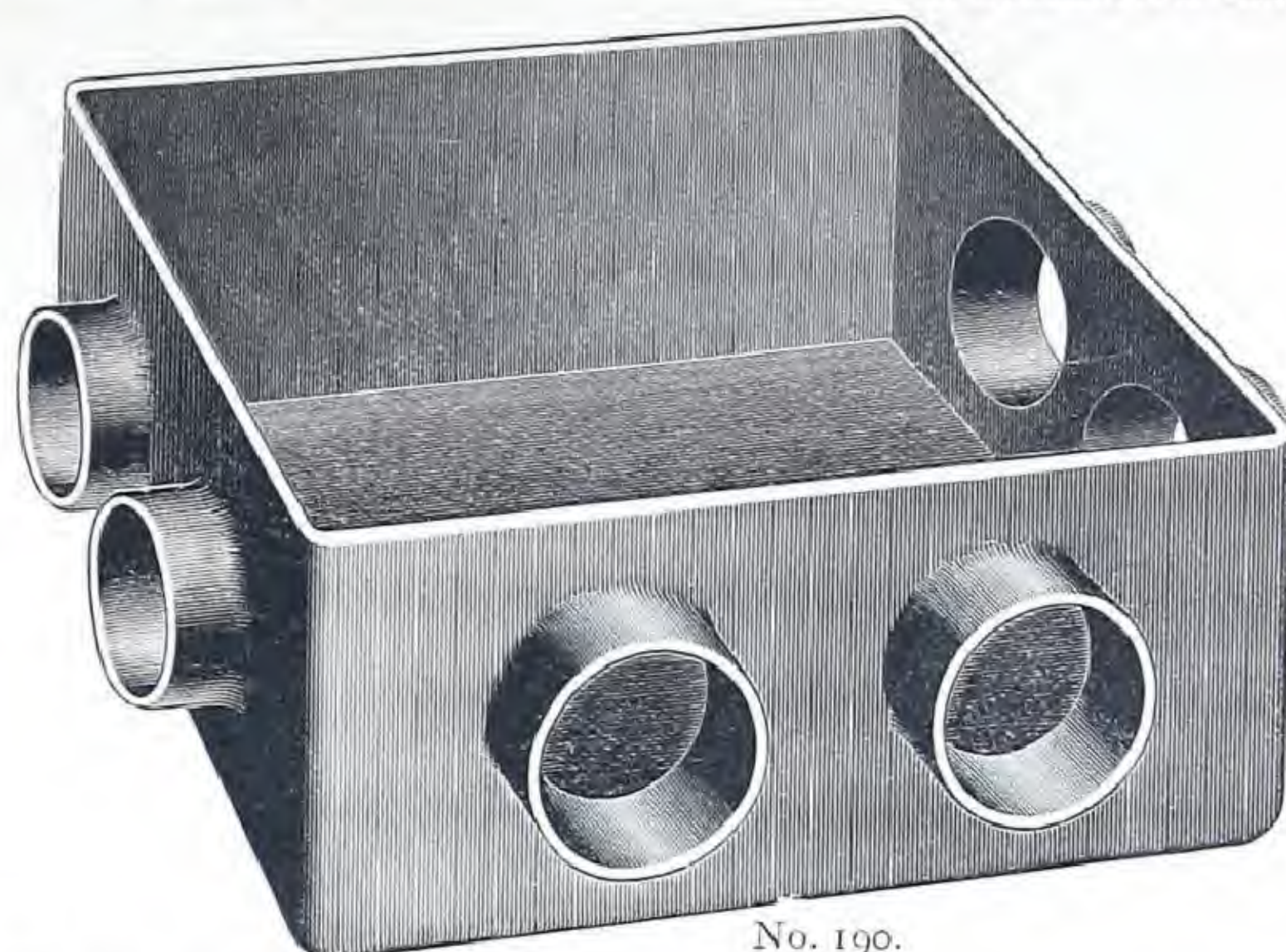
Feeder Junction Boxes.

In ordering be careful to specify
sizes of conduits to be used.



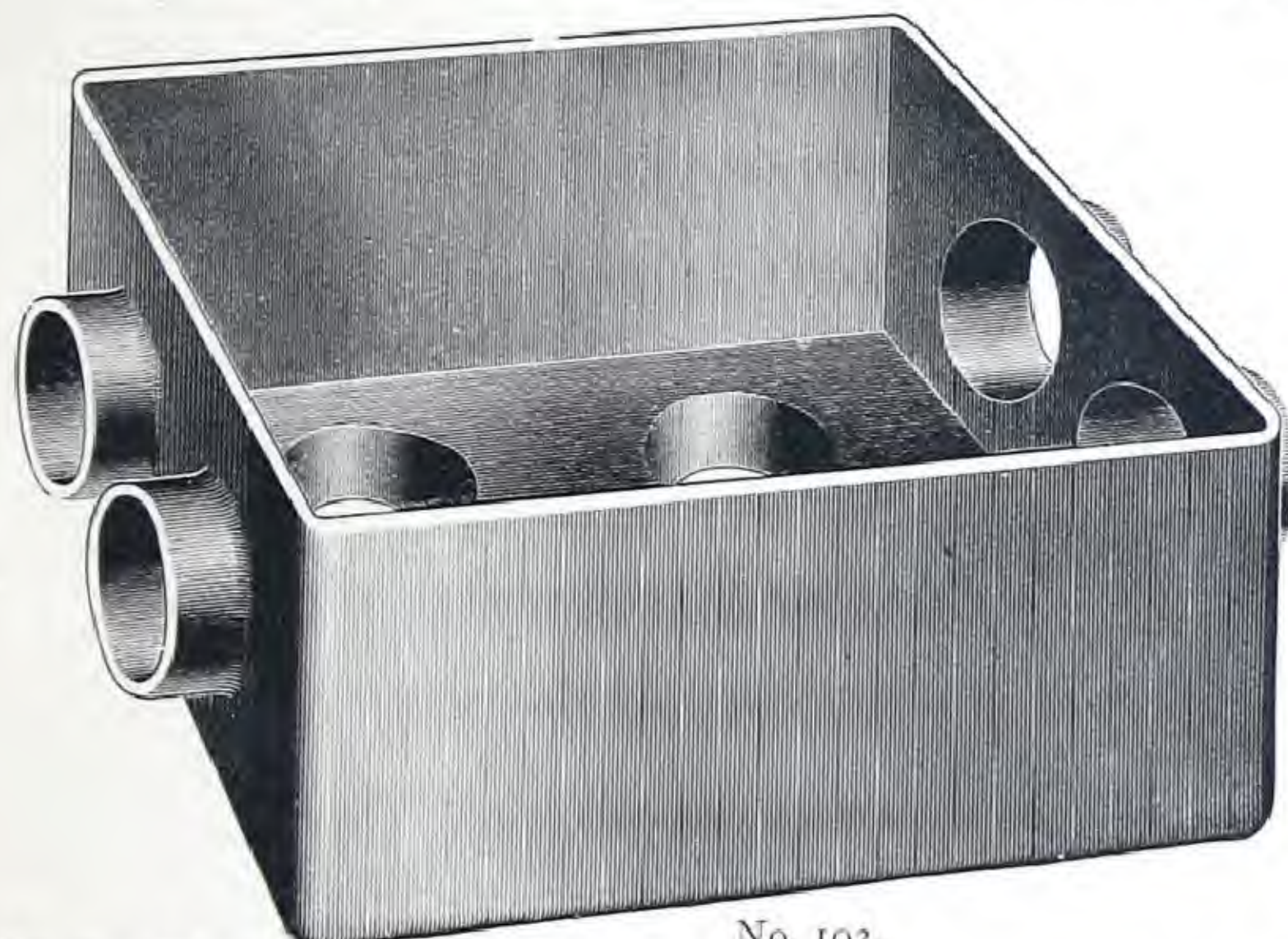
No. 98.

No. 98, Two wire system, without cover, plain \$1 40
" 99, Three wire system " " plain 1 45



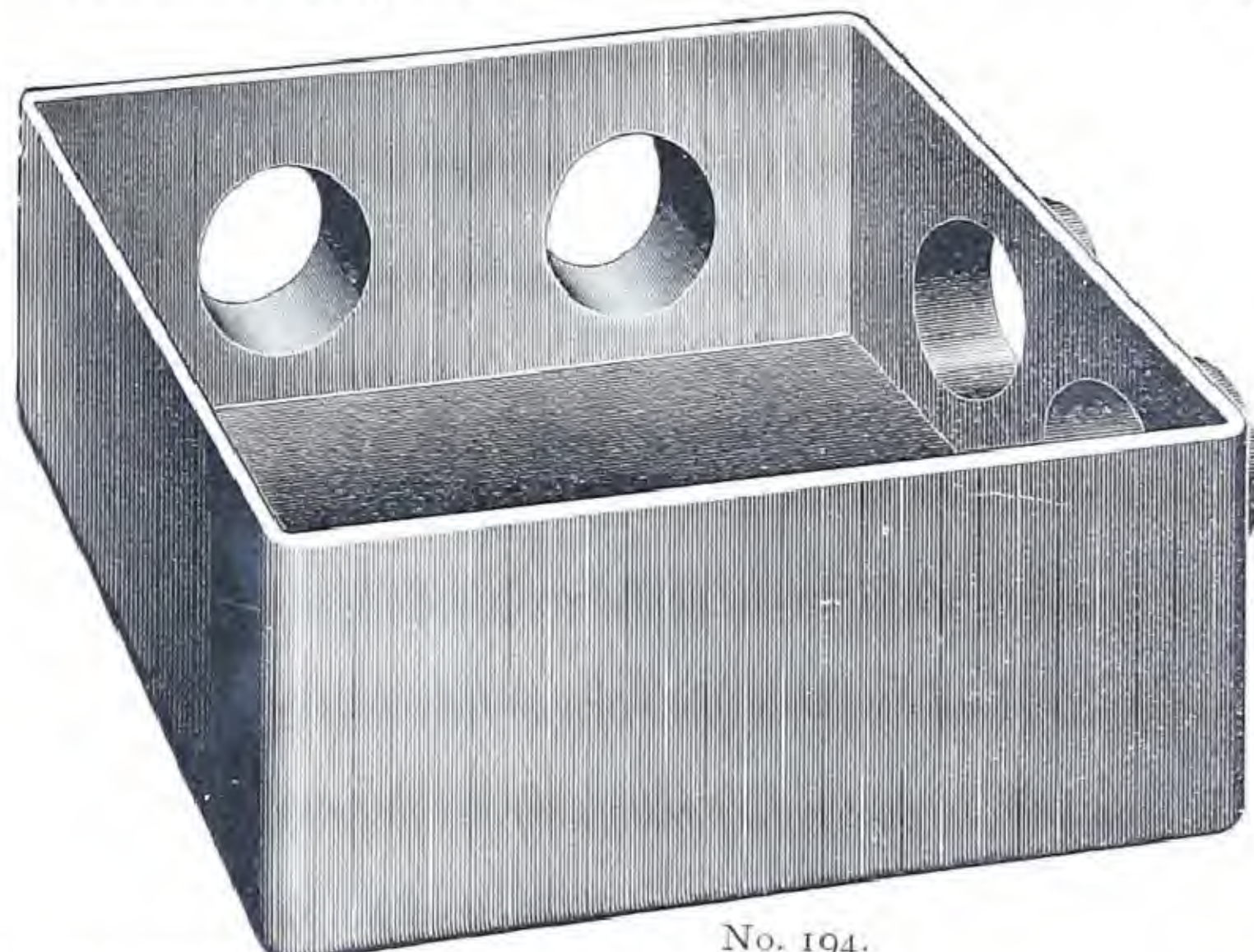
No. 190.

No. 190, Two wire system, without cover, plain \$1 40
" 191, Three wire system " " plain 1 45



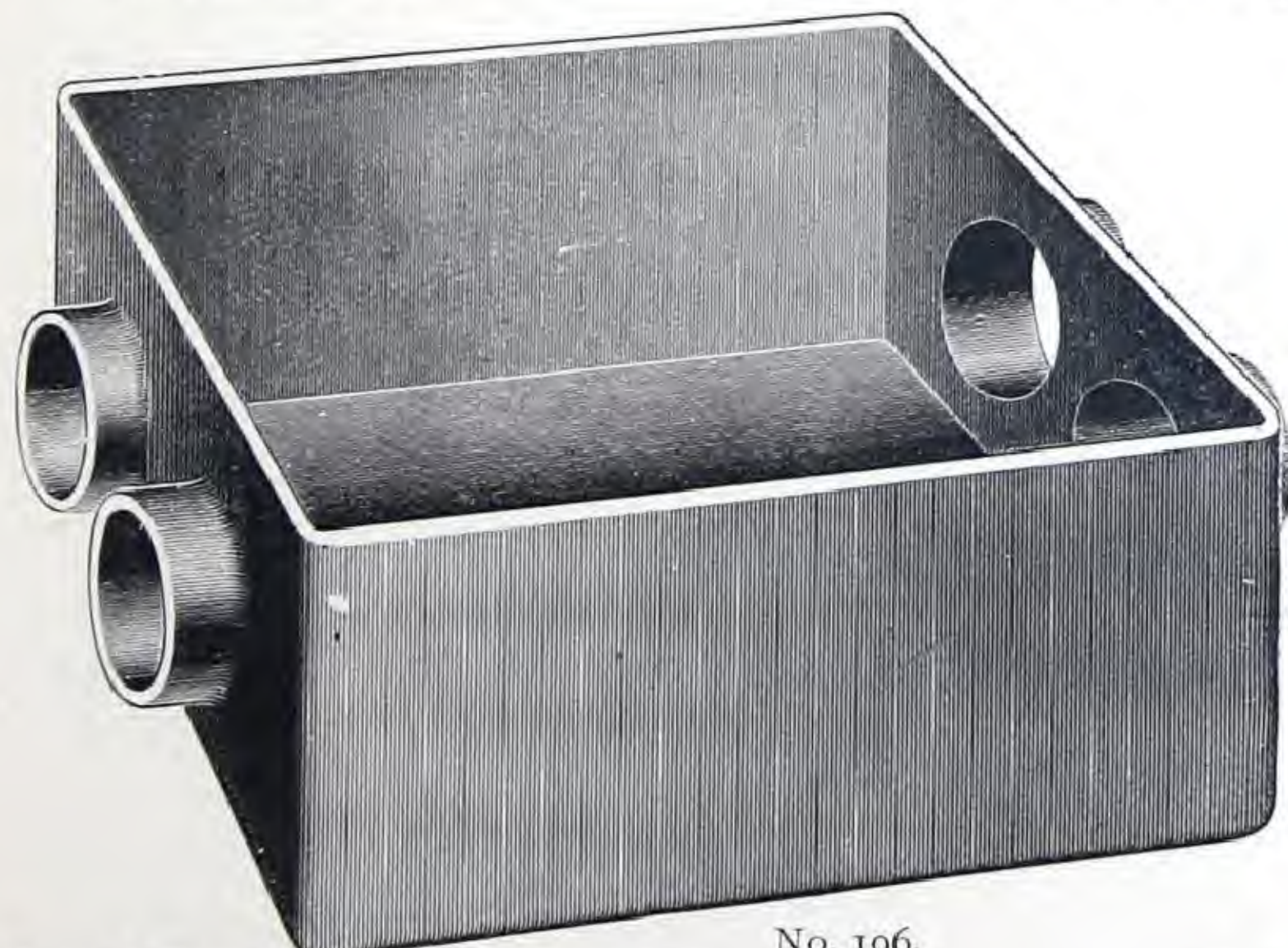
No. 192.

No. 192, Two wire system, without cover, plain \$1 40
" 193, Three wire system " " plain 1 45



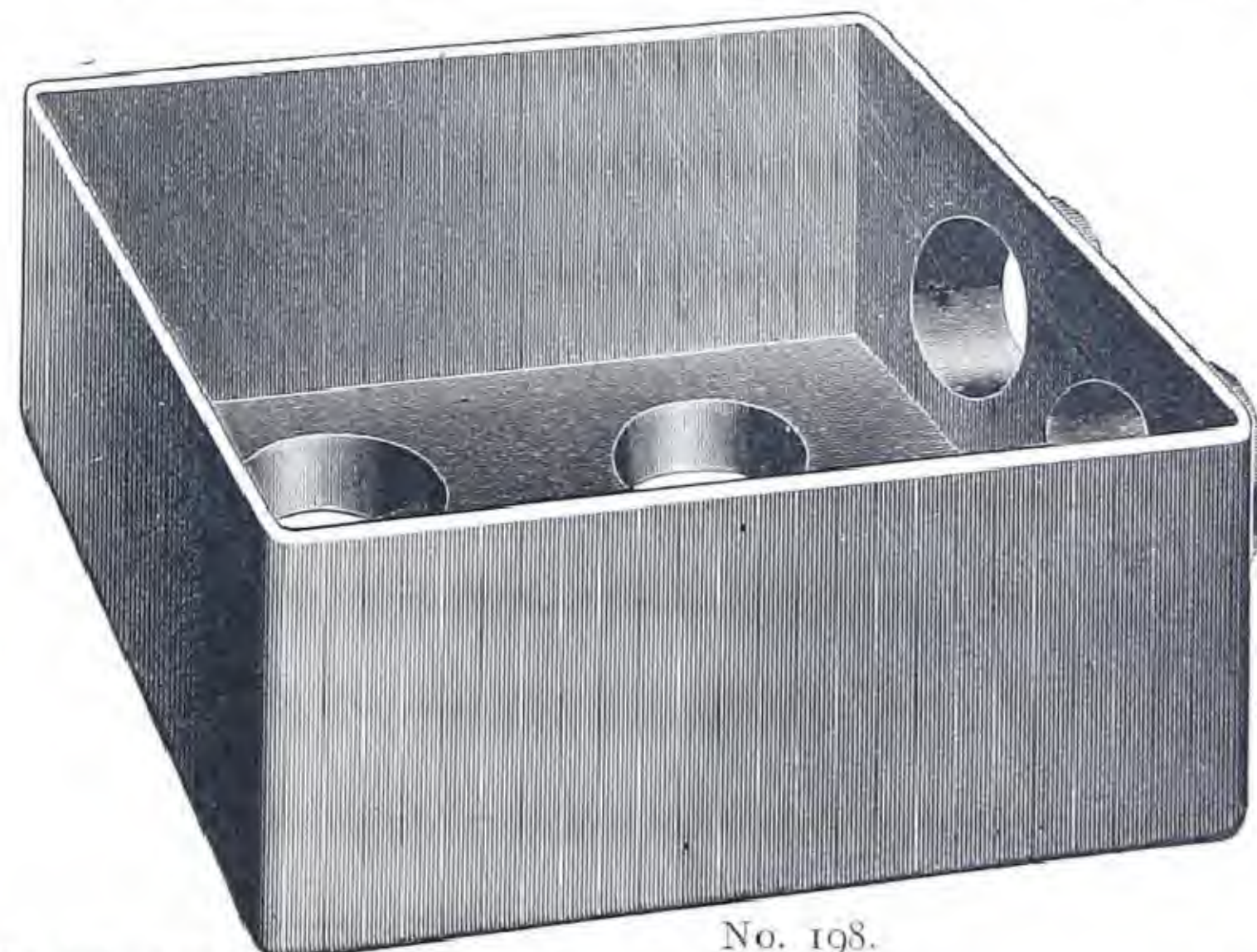
No. 194.

No. 194, Two wire system, without cover, plain \$1 40
" 195, Three wire system " " plain 1 45



No. 196.

No. 196, Two wire system, without cover, plain \$1 40
" 197, Three wire system " " plain 1 45



No. 198.

No. 198, Two wire system, without cover, plain \$1 40
" 199, Three wire system " " plain 1 45

Brass Covered Feeder Junction Boxes Furnished to Order.

General Offices and Show Rooms, 42 & 44 Broad St. Works, 527, 529 & 531 West 34th St., and 526 & 528 West 35th St.

Couplings for Plain and Brass Armored Conduits.



No. 102.



No. 103.

Coupling for Plain Conduit.

SIZE	PER HUNDRED.	PRICE
$\frac{1}{4}$ Seamless Nickeled Brass, Non-corrosive		\$2 50
$\frac{5}{16}$ " " " "		2 50
$\frac{3}{8}$ " " " "		2 75
$\frac{1}{2}$ " " " "		3 25
$\frac{5}{8}$ " " " "		4 00
$\frac{3}{4}$ " " " "		5 00
1 " " " "		6 25
$1\frac{1}{4}$ Seamed Brass	\$13 50	Seamed Tin 9 50
$1\frac{1}{2}$ " " "	17 50	" " 12 00
2 " " "	25 00	" " 15 00
$2\frac{1}{2}$ " " "	35 00	" " 20 00

Insulating Coupling for Brass Armored Conduit.

SIZE	PER HUNDRED.	PRICE
$\frac{5}{16}$ Seamless Brass		\$5 00
$\frac{3}{8}$ " " "		5 50
$\frac{1}{2}$ " " "		6 50
$\frac{5}{8}$ " " "		8 00
$\frac{3}{4}$ " " "		11 50
1 " " "		15 00
$1\frac{1}{4}$ " " "		30 00

These Couplings are provided with an inner sleeve or bushing of insulating material, and are applied in the same manner as the Standard Couplings, No. 102, and with the same coupling tool.

Sizes given with above Couplings are those of the inside diameter of the conduit tubes for which they are intended.

Sheet Brass Clips for Conduits.

SIZE	PRICE
$\frac{1}{4}$ inch per gross	\$0 50
$\frac{5}{16}$ " "	50
$\frac{3}{8}$ " "	65
$\frac{1}{2}$ " "	80



No. 125.

SIZE	PRICE
$\frac{5}{8}$ inch per gross	\$0 90
$\frac{3}{4}$ " "	1 00
1 " "	1 40
$1\frac{1}{4}$ " "	2 00

Twisted Wire Clips for Conduits.



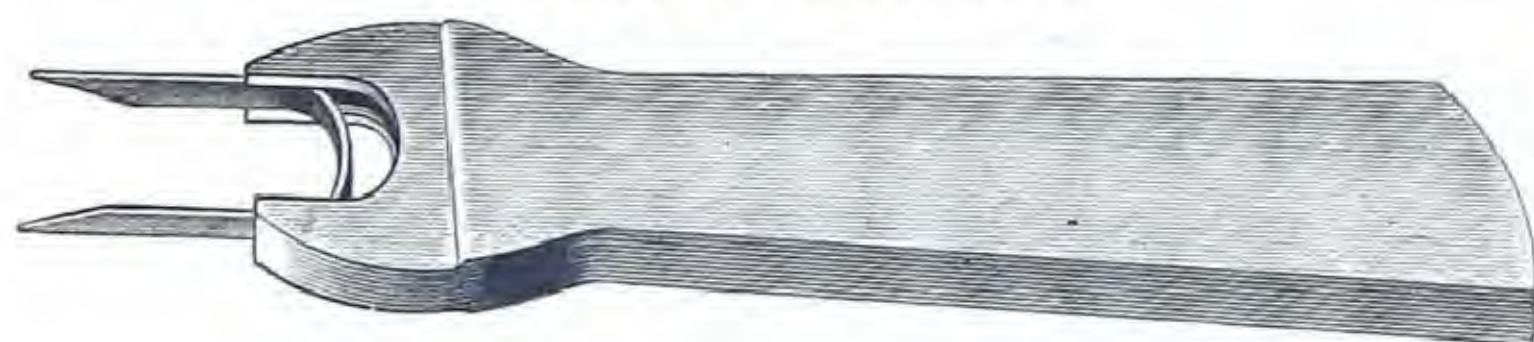
No. 129.

Size A, 4 inches long, for tubes up to $\frac{5}{8}$ inch inclusive	per thousand	\$4 00
" B, 7 " " " " " " " " " " " "	"	5 00

We recommend for use with these wire clips, Flat-head Nails which we will furnish at the following *net* prices:

1 inch per pound	8c.
$1\frac{1}{4}$ inch per pound	7c.

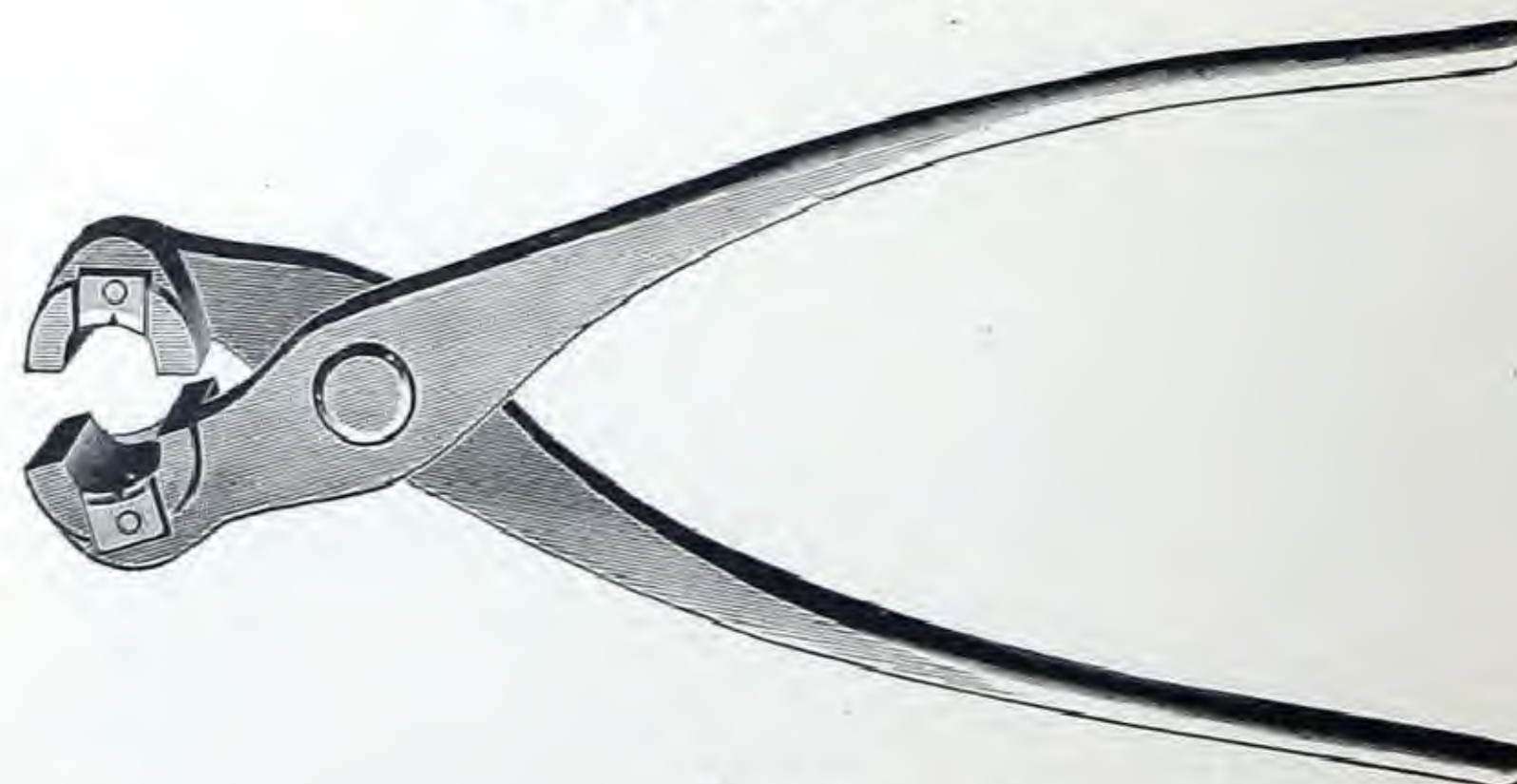
Staple Drivers.



No. 140.

SIZE	PRICE	SIZE	PRICE
$\frac{1}{4}$ inch \$0 10 each net.		$\frac{5}{8}$ inch \$0 16 each net.	
$\frac{5}{16}$ " 11 " "		$\frac{3}{4}$ " 18 " "	
$\frac{3}{8}$ " 12 " "		1 " 20 " "	
$\frac{1}{2}$ " 14 " "		$1\frac{1}{4}$ " 24 " "	

Coupling Tool.



No. 152.

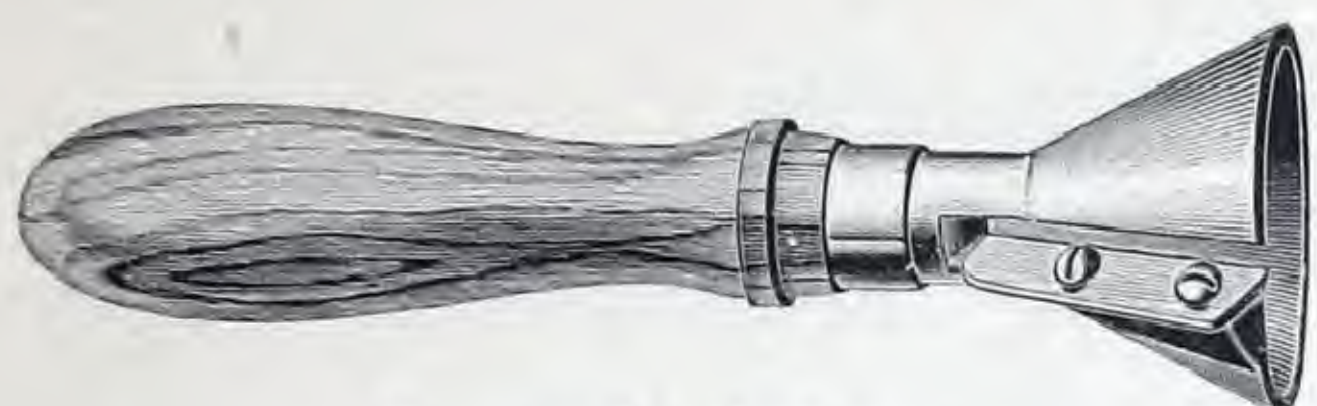
SIZE	PRICE	SIZE	PRICE
$\frac{1}{4}$ inch \$0 90 net.		$\frac{5}{8}$ inch \$1 25 net.	
$\frac{5}{16}$ " 90 " "		$\frac{3}{4}$ " 1 50 " "	
$\frac{3}{8}$ " 1 00 " "		1 " 1 75 " "	
$\frac{1}{2}$ " 1 20 " "		$1\frac{1}{4}$ " 2 15 " "	

Miscellaneous.

Staples, all sizes per pound	\$0 10 net
Compound for making joints	20 "
Powdered Soapstone	4 "
Fishing Wire per foot	1 "

General Offices and Show Rooms, 42 & 44 Broad St. Works, 527, 529 & 531 West 34th St., and 526 & 528 West 35th St.

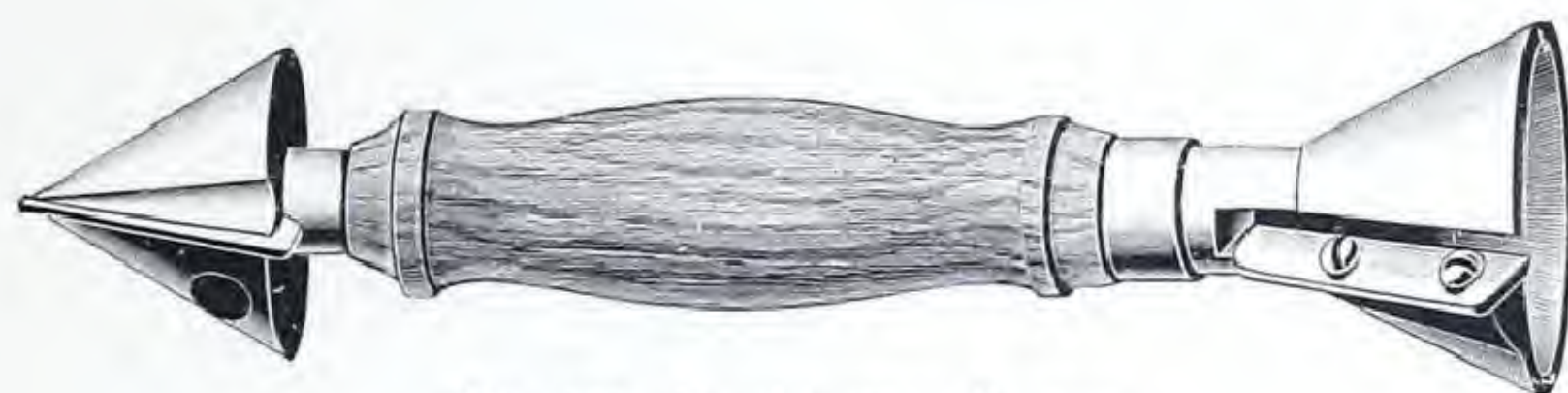
Finishing and Fitting Tools for Conduits.



No. 153, Outside Reamer.



No. 154, Inside Reamer.



No. 157, Combination Reamer.

IN our Wiring Specifications we have called particular attention to the importance of making perfect air and water-tight joints, and have issued printed directions as to the proper application of our Standard Coupling and Tool.

To facilitate making the tube abut squarely in the centre of the coupling and to insure that no obstruction is offered to the drawing in of the conductors, we provide and advise the use of the special tools illustrated above.

The Outside Reamer helps to quickly enter the tubes and elbows into the couplings, and the Inside Reamer takes off rough edges and insures a smooth interior at the abutting ends within the coupling.

The above tools are made of Soft Iron with adjustable Steel Knives and neat turned Wooden Handles, and are adapted to all sizes of tube, up to $1\frac{1}{2}$ inch.

Trimmer for Metal-Covered Conduit Tube.



No. 155.
Trimmer for Metal
Covered Conduit
Tube.

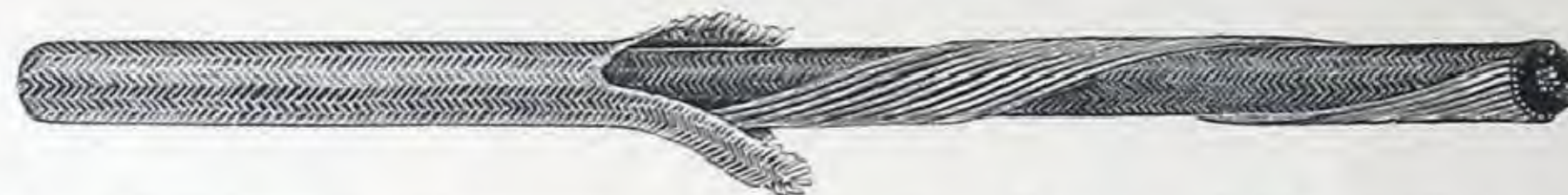
To make a proper joint of our Armored or Brass Covered Conduit, for which purpose our No. 103 Insulating Couplings are provided, the brass covering or armor must first be removed for about a half inch back from the ends of the tubes, or elbows (as the case may be), and for this purpose we furnish our No. 155 tools illustrated hereon. They are made of Malleable Iron and have a revolving steel knife or cutter. Only two sizes of tools are necessary for all sizes of tubes. They do their work effectively and quickly. The adjustment screw should be set when changing from one thickness of tube to another, so that the knife will not cut too deeply.

Price List.

No. 153, Outside Reamer,		\$1 00
" 154, Inside Reamer,		1 00
" 157, Combination Reamer,		1 90
" 155, Trimmer for Brass covered Conduit Tube, for Conduits up to and including $\frac{5}{8}$		2 10
" 155, " " " " " " " " " " " "	$1\frac{1}{4}$	2 60
" 156, Universal Trimmer for Brass covered Conduit Tube for all sizes Conduits,		4 25

Standard Twin Conductor, No. 1.

(Single Rubber.)



In our Standard Twin Conductor, illustrated hereon, we offer a Wire which will be found to fill every condition of safety and reliability, when employed in combination with our Conduit system. Besides its function as a safety conductor it possesses these important advantages:

First. It costs less money than two separately insulated wires of like quality and capacity.

Second. It can be placed in smaller compass than any other Double Conductor or any two separately insulated wires, and, therefore permits of the very desirable practice of placing the containing tubes on the ceiling and side wall surfaces, and then covering them with the ordinary plaster, thereby obviating the bad practice of running the tubes under the floors or behind the lath and plaster, or of cutting channels in fire proofing.

Third. Its extreme Flexibility renders it easy to draw in and out of tubing of very close approximation to its own diameter.

Fourth. The combination of the two conductors in one tube and in one strand materially lessens not only the cost of material, but of the labor in any given installation.

Fifth. It affords an absolute guarantee that any fault which may develop at any time will result in a short circuit, and therefore blow the safety fuse and thus remove all danger. This is an important and valuable achievement in electric light wiring, though but imperfectly understood.

Standard Twin Conductor, No. 2.

(Double Rubber.)



Some criticism of our Standard Twin Conductor has been developed by the fact that although we provided ample rubber insulation between the two conductors themselves, we provide only a saturated cotton braid as an insulation for the outside conductor, relying upon the tube for final protection.

To this criticism we reply that our tube, properly installed, will be found to afford all the additional insulation required to secure safety and reliability.

Nevertheless, pursuing our policy of meeting every demand, we have decided to manufacture and offer two grades of the Standard Twin Conductor, as follows:

Standard Twin Conductor, No. 1 (Single Rubber).

" " " No. 2 (Double Rubber).

Standard Twin Conductor, No. 2, will be provided with an outside covering or insulation of rubber in addition to the braid, as shown in the above illustration.

Price List of Standard Twin Conductor.

No. 16 B. & S. per 100 feet	No. 1 \$3 44	No. 2 \$5 32
" 14 " " "	" 4 30	" 5 42
" 12 " " "	" 5 39	" 8 66
" 10 " " "	" 8 09	" 9 26

Subject to Special Discounts.

Department B.



CUT-OUTS,

AUTOMATIC SWITCHES,

FLANGES, NOZZLES,

AMPÈRE METERS,

RECEPTACLES,

BRACKETS,

SWITCHES,

INSULATING JOINTS,

CABLE AND WIRE JOINTS,

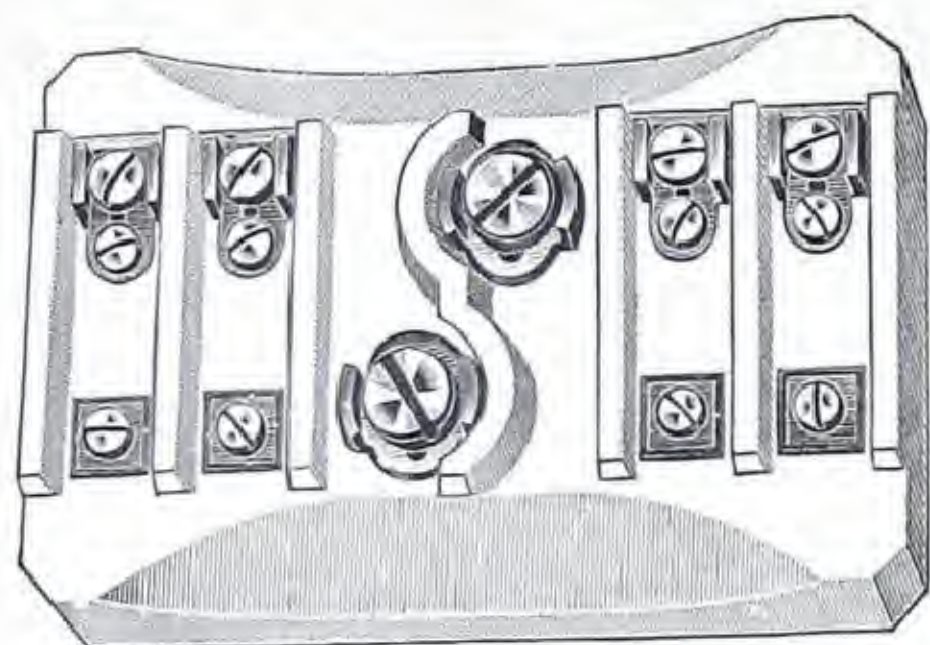
PENDANTS,

ATTACHMENTS,

ETC., ETC.

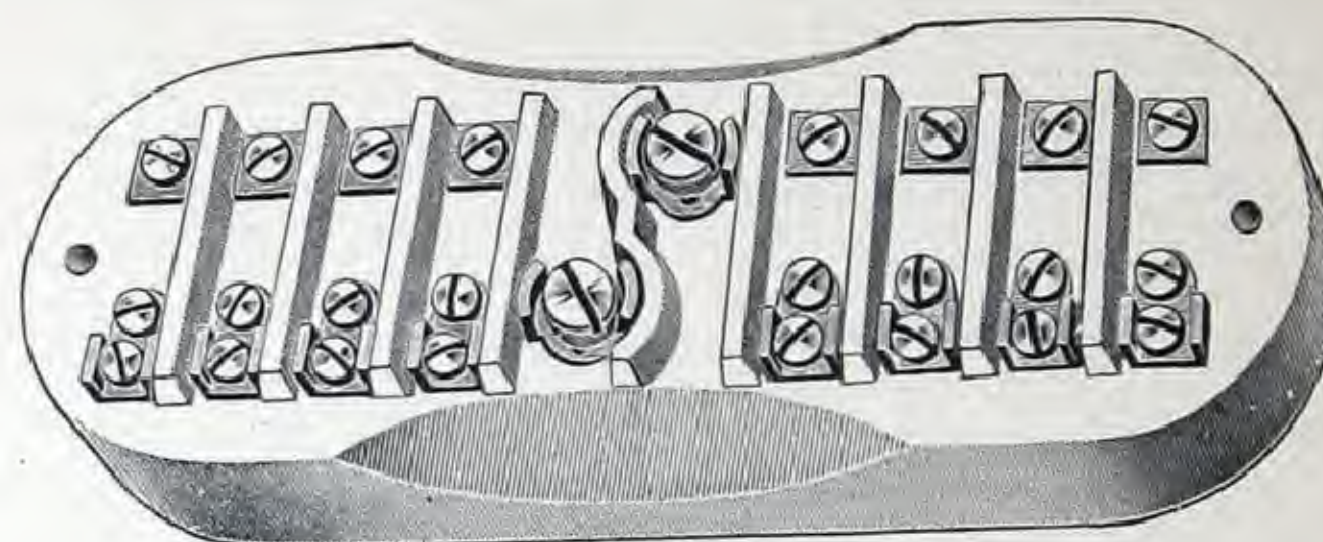
Porcelain Cut-outs.

Specially Designed for use with Conduit Junction Boxes.



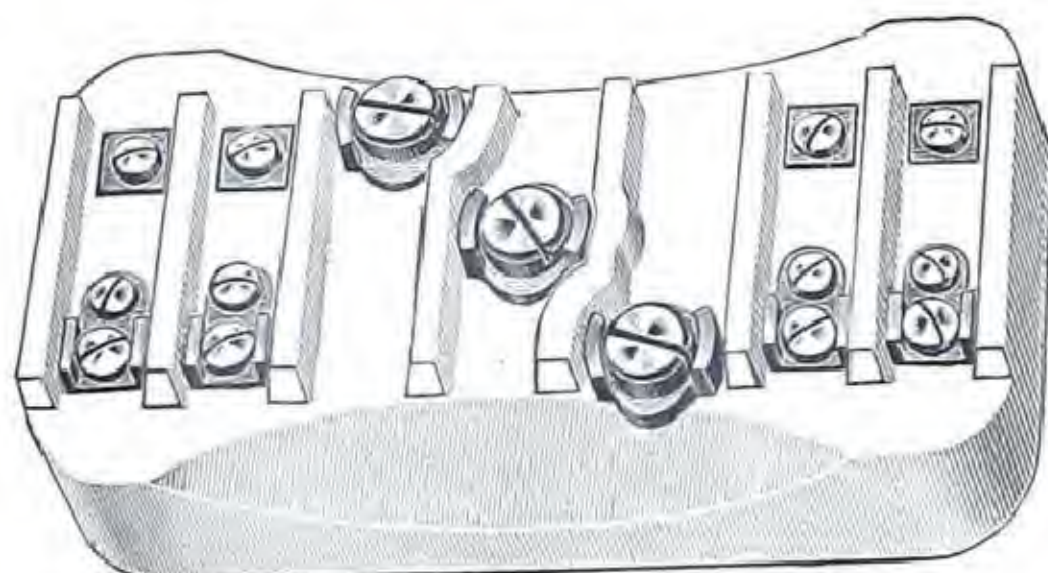
No. 120.

FOR
TWO WIRE
SYSTEM.



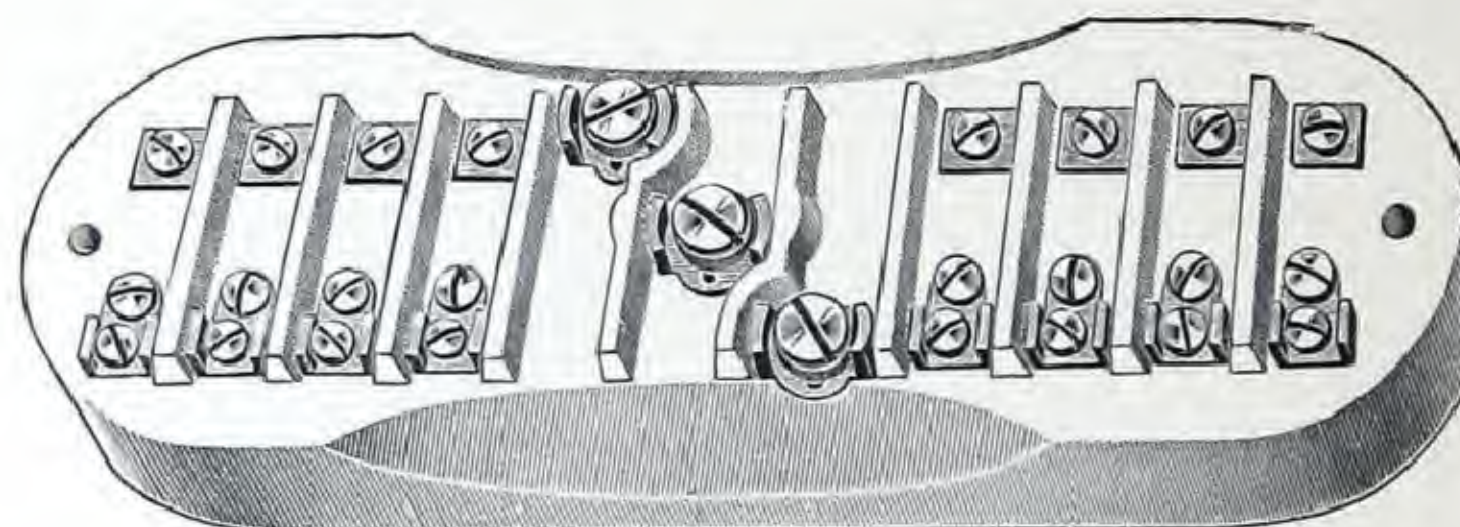
No. 121.

No. 120,	Two Wire,	Two Circuit Porcelain Cut-out,	for use with Junction Boxes Nos. 2, 4, 11 and 13	. . .	\$1 90
" 121,	" Four	" " " " " "	" " " " 1, 3, 7, 10, 12 and 14	. . .	2 70



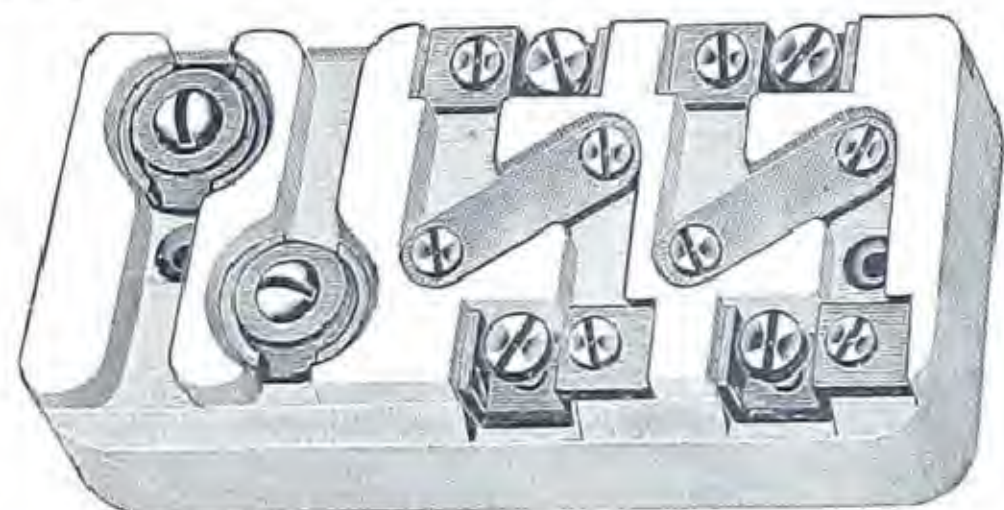
No. 122.

FOR
THREE WIRE
SYSTEM.



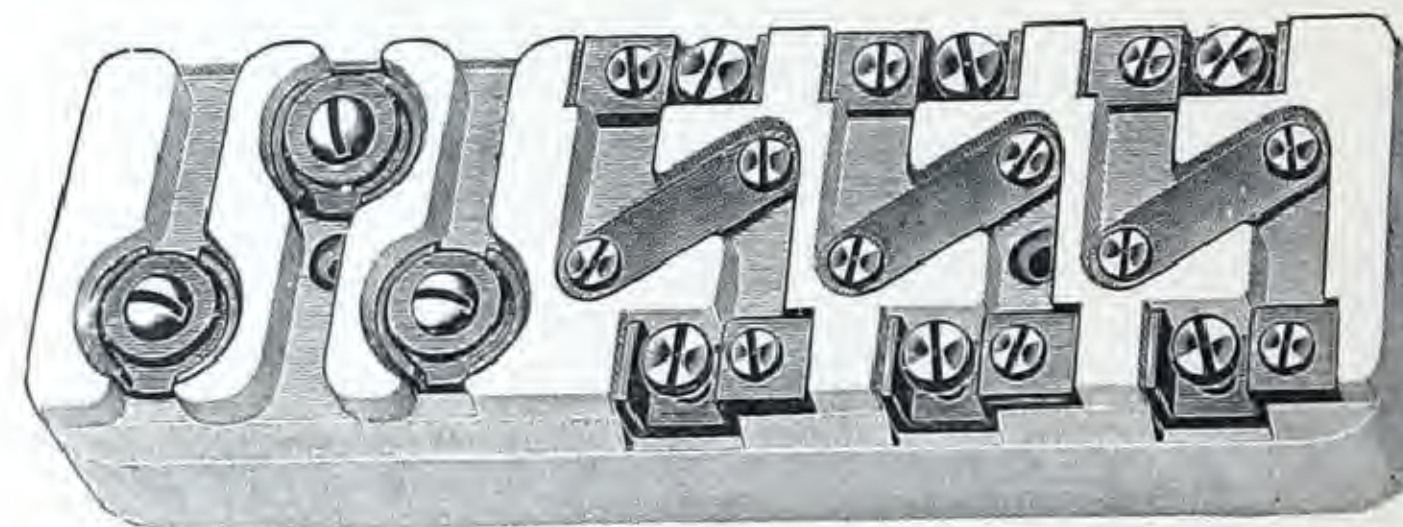
No. 123.

No. 122,	Three Wire,	Two Circuit Porcelain Cut-out,	for use with Junction Boxes Nos. 21, 23, 31 and 33	. . .	\$2 00
" 123,	" Four	" " " " " "	" " " " 20, 22, 24, 30, 32 and 34	. . .	2 90



No. 6.

FOR
FEEDERS.



No. 27.

No. 6,	Two Wire,	Feeder Terminal Porcelain Cut-out,	for use with Junction Boxes Nos. 90, 91, 92 and 93	. . .	\$3 50
" 27,	Three	" " " " " "	" " " " 94, 95, 96 and 97	. . .	4 75



No. 710.

FOR
INTERSECTIONS
AND
OUTLETS.

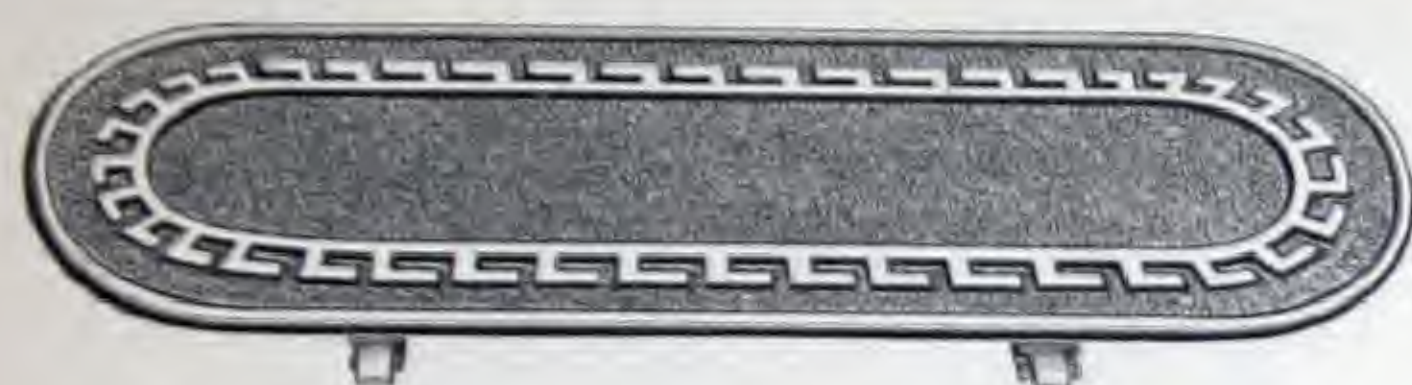


No. 712.

No. 710,	Outlet or Tap Cut-out,	for use with Branch Boxes	. . . . .	45c.
" 712,	Intersection Cut-out,	for Two Wire System, to fit Conduit Boxes	. . . . .	90c.

Above Prices of Cut-outs do not include Safety Leads.

Metal Covers for Junction Boxes.



No. 60, Cast as illustrated with spring clips.



No. 62, Cast as illustrated with screw holes.

No. 67, Plain Sheet Metal with screw holes.



No. 64, Plain Sheet Metal with screw holes.

Price List.

SIZE	DIMENSIONS OF BOXES	FINISH	No. 60	No. 62	No. 67	No. 64
A	7 1/2 x 3 7/8	{ Brass { Galv. Iron	\$1 50 1 10	\$0 95 55	\$0 75 ...	\$... ...
B	8 5/8 x 3 7/8	{ Brass { Galv. Iron	1 75 1 25	1 05 60	85...	......
C	10 3/8 x 3 7/8	{ Brass { Galv. Iron	2 00 1 40	1 30 75	1 05...	......
D	12 x 3 7/8	{ Brass { Galv. Iron	2 25 1 60	1 55 90	1 20...	......
E	6 1/2 x 6 1/2	{ Brass { Galv. Iron	1 85 1 30	1 15 65	95...	......
F	7 x 3 7/8	Brass	...	...	...	60
G	9 3/8 x 3 7/8	Brass	...	...	...	85
H	8 3/8 x 3 7/8	Brass	...	...	...	75
J	11 3/8 x 3 7/8	Brass	...	...	...	1 05

All Junction Boxes are now furnished adapted for covers with screw holes only, and No. 60 covers with spring clips are only furnished upon special order.

Metal Covers for Branch Boxes.



No. 61.
Fancy Cover.
Regular.



No. 599.
Fancy Cover
With Nozzle for Sockets.



No. 597.
Fancy Cover
With Rubber Bushing.



No. 63.
Plain Cover.
Regular.



No. 835.
Fancy Cover
With 2 1/4 inch Holder.



No. 66.
Plain Cover
With Rubber Bushing.

Price List.

No.			DIPPED BRASS	POLISHED BRASS	BLACK IRON
63	Plain Cover, Regular		\$0 10	\$0 15	\$0 06
66	" " With Rubber Bushing		15	20	11
61	Fancy " Regular		20	25	
597	" " With Rubber Bushing		25	30	
599	" " With 1/8 inch Nozzle		25	30	
835	" " With 2 1/4 inch Shade Holder		35	40	

General Offices and Show Rooms, 42 & 44 Broad St. Works, 527, 529 & 531 West 34th St., and 526 & 528 West 35th St.

New Combined Pull Switch and Ceiling Pendant Cut-outs.



No Key Socket Required. The Switch is Concealed Within the Cut-out itself.

Fig. 1 illustrates a new form of Switch designed to overcome the difficulties experienced in turning on and off any style of key socket suspended from flexible pendants. This Switch is concealed within the shell of the cut-outs as shown above. Grasping either the cord or the lamp with the hand, the light may be turned both on and off by a slight pull only. This form of Switch will be found very advantageous for use in place of a key socket or other Switch in circuit, as in clothes closets and in like places where the lamp is within reach of the hand.

The shell containing the Switch is easily and quickly detachable from the base, and embodies in itself safety fuses and ready means for making connections to the flexible cord.

As illustrated above, the Switch is made in two different styles, one to fit standard conduit branch junction boxes and cut-outs, and the other adapted to the base of our "V. V." Ceiling Cut-out, illustrated on page 22.

No. 670. Switch with Porcelain Base and Polished Brass Shell, (not including Branch Junction Box)	\$2 80
No. 674. Switch with "V. V." Porcelain Base, complete	3 00

Pendant Pull Switches.



No. 727.



Fig. 1.



No. 729.

The same mechanical principle employed in the Combined Ceiling Pull Switch and Cut-outs illustrated on the opposite page and in Fig. 1, above, is used to great advantage in Pendant Pull Switches, Nos. 727 and 729.

No. 727, Pendant Pull Switch.

This Switch is designed for attachment to flexible cords for controlling incandescent lamps with the same freedom and safety as is experienced in handling an ordinary push button on an annunciator circuit.

The Switch may be used as a pendant from the center of electroliers, thus dispensing with key sockets, and affording ready means for easily controlling the current. Other applications of this switch are too numerous to mention in detail. In general, it serves to bring within control lamps which are otherwise out of reach, permitting them to be turned on and off from any point that may be reached by a flexible cord. The Switch is easily and quickly wired and thoroughly reliable.

No. 729, Intersecting Pendant Pull Switch.

This Switch illustrates another application of the same mechanical principle embodied in the foregoing designs, and may be used with advantage in flexible cord pendants where it is not convenient to substitute the Combined Ceiling Pull Switch and Cut-out for the ceiling block already in use.

The Switch may be inserted in any flexible cord pendant by simply cutting the cord and attaching the terminals to the binding screws provided for that purpose. As in the other forms of the same switch, the light may be turned on and off by a slight pull of the cord only.

No. 727, Pendant Pull Switch, capacity three ampères . . . Polished Brass, \$1 75

No. 729, Intersecting Pendant Pull Switch, capacity three ampères " " 1 95

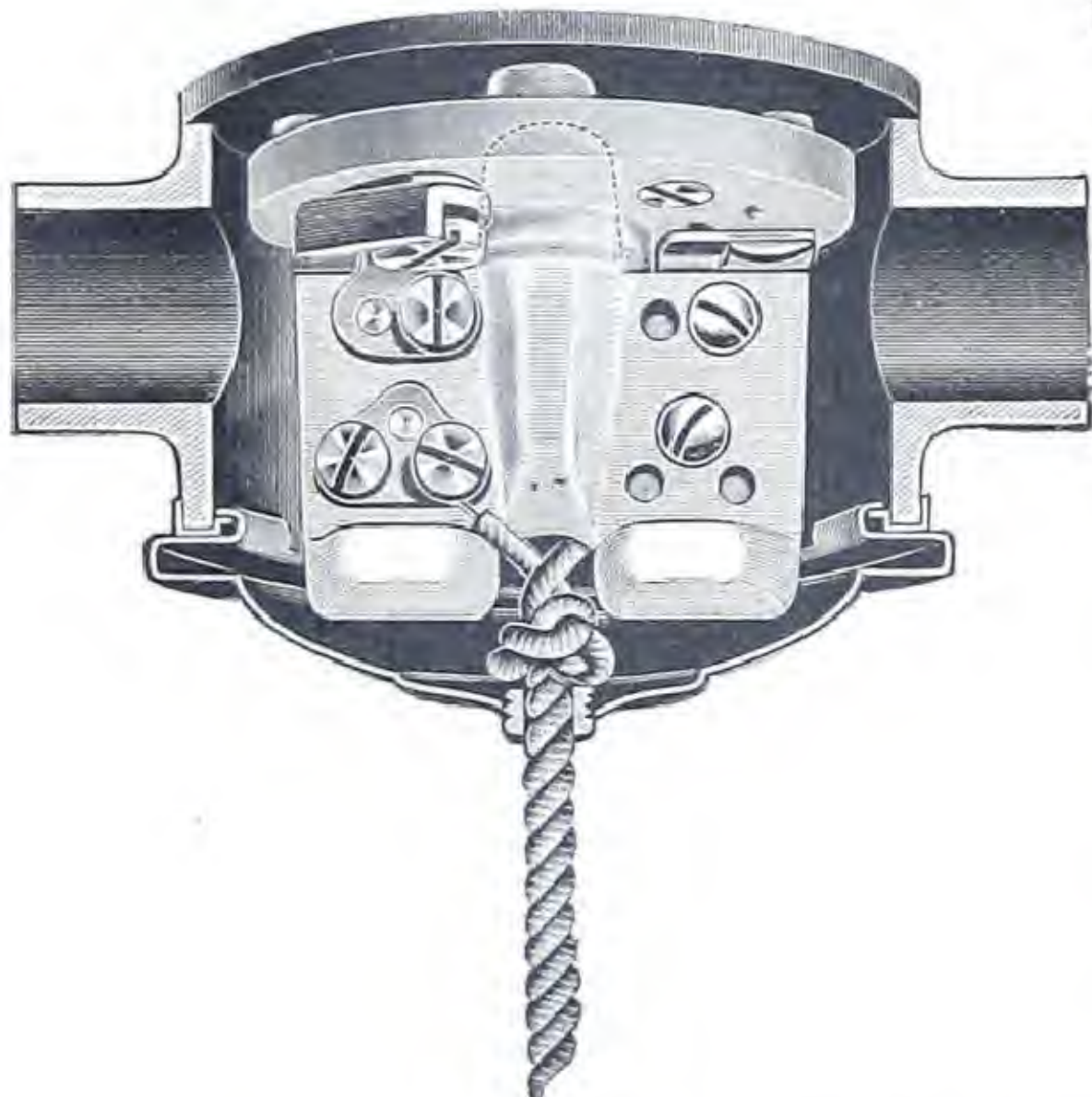
Ceiling Pendant Cut-outs for Conduits, Etc.



No. 776.

No. 776 shows a new and effective form of Porcelain Pendant Cut-out designed for use with Conduit Tubes, especially where the same are run on the surface. The base portion of the Cut-out is provided with side holes for receiving the Conduit tube. These holes are curved so that the wires may be drawn in or out, and therefore the usual branch box is unnecessary. In combination with Brass Armored Conduit, this Porcelain Cut-out makes the handsomest possible surface work. It is equally well adapted for concealed work with either plain or armored conduit.

No. 776, Double Pole Porcelain Ceiling Pendant Cut-out, price without leads 70c.



No. 770.

No. 770 shows an improved form of Porcelain Ceiling Pendant Cut-out, designed with special reference to utilizing the space afforded by our Conduit Branch Boxes, and besides the advantage of having the Cut-out concealed from view, it is at the same time well protected from any outside source of injury, and if the safety fuse is melted the result is safely confined within the branch box. It can be easily applied and connected.

No. 770, Double Pole Porcelain Ceiling Pendant Block for Branch Conduit Boxes, price without leads 70c. Brass Cover with Rubber Bushing as shown on cut, plain 25c., Brass polished 30c. Rubber Bushing only 4c.



No. 774.

No. 774 shows our New "V. V." Ceiling Pendant Cut-out which is the neatest and best yet made, as it has all the following desirable qualities.

- First.* No exposed metal contacts or parts.
- Second.* Square base for abutting moulding.
- Third.* Adaptation for either open, moulding, or concealed work.
- Fourth.* Interlocking contacts that cannot work loose.
- Fifth.* Plenty of room for making connections, etc., etc.

No. 774, Double Pole Porcelain Ceiling Pendant Cut-out, price without leads 48c.

Sockets and Receptacles for Conduit Branch Boxes.

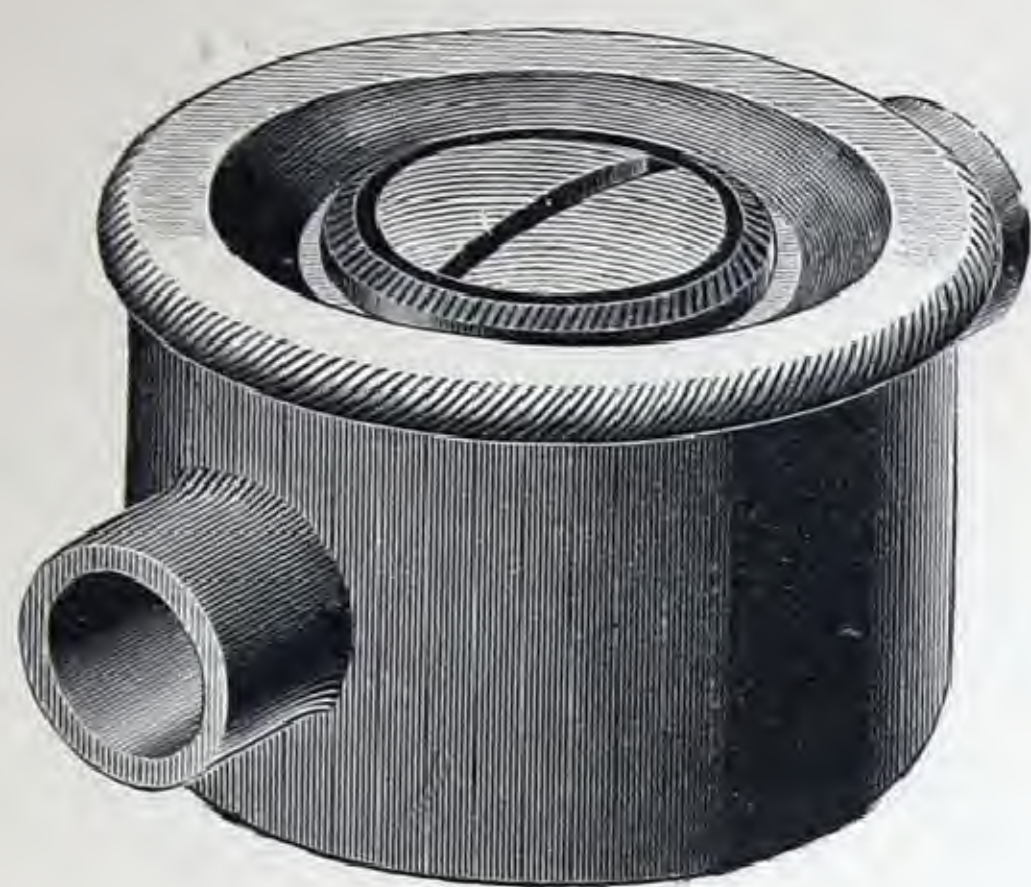
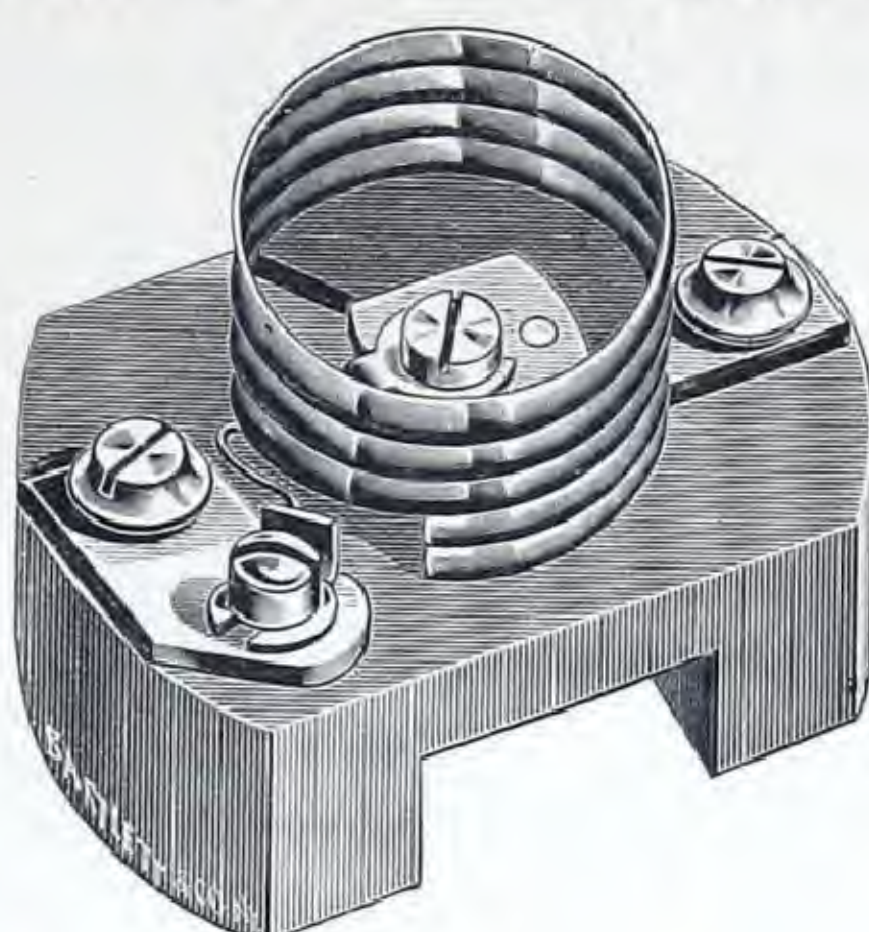
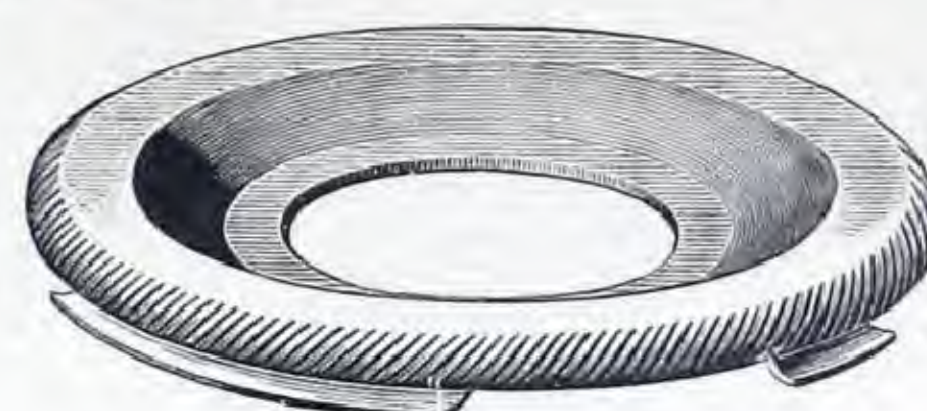


Fig. 1.



Nos. 830 and 831.



No. 832.



No. 833.

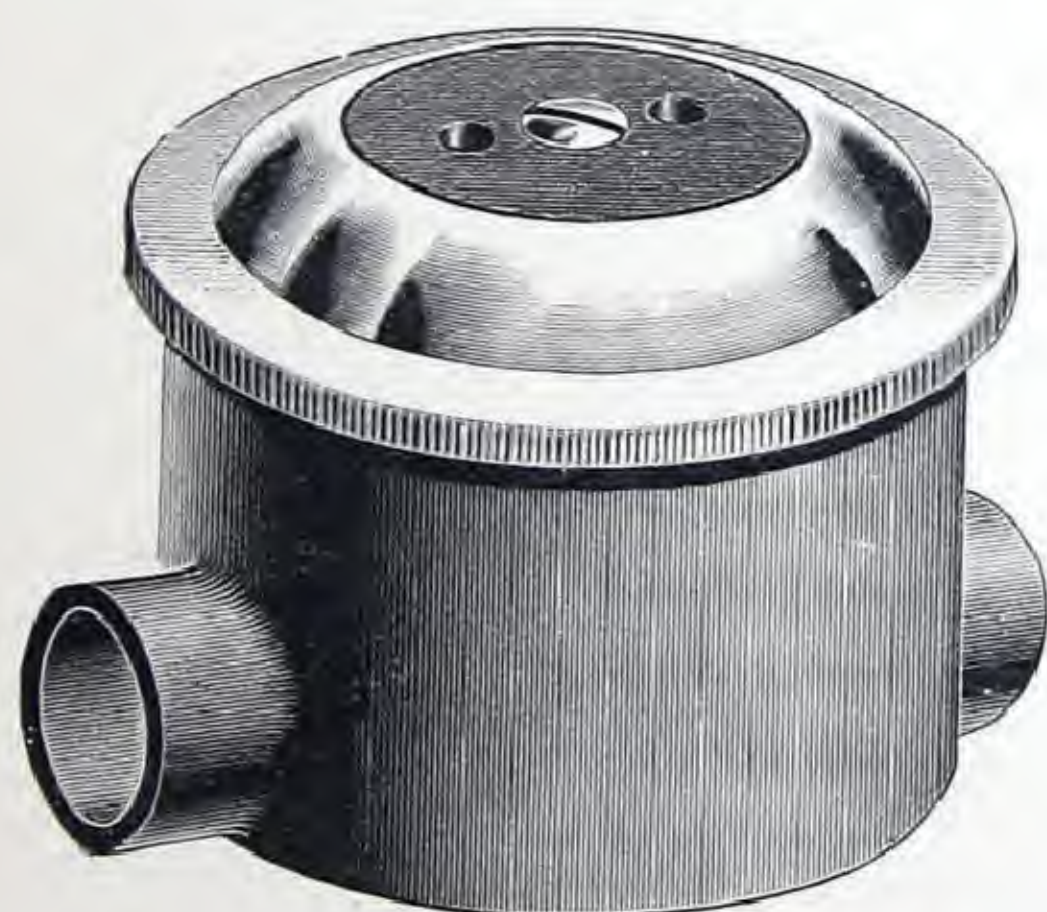


No. 834.

Fig. 1 shows the complete socket or receptacle inclosed in Branch Box in which it is held in position by the brass cover No. 832 and the rubber screw ring No. 834. The dummy plug No. 834, of wood or hard rubber, is also shown. The whole is arranged so that no part projects beyond the cover itself or its edge. This has been done with special reference to the use of the device as a Floor Receptacle and of course is an advantage in any place where it may be used.

No. 830, Socket with Porcelain Base, including Cut-out	\$0 75
" 831, Receptacle with " " without "	65
" 832, Cover for Nos. 830 and 831, Brass, plain, 20c. Polished Brass	25
" 834, Hard Rubber Screw Ring for Nos. 830 and 831	10
" 833, Dummy Plug to protect contacts when Socket or Receptacle is not in use. Wood, 15c. Hard Rubber	50

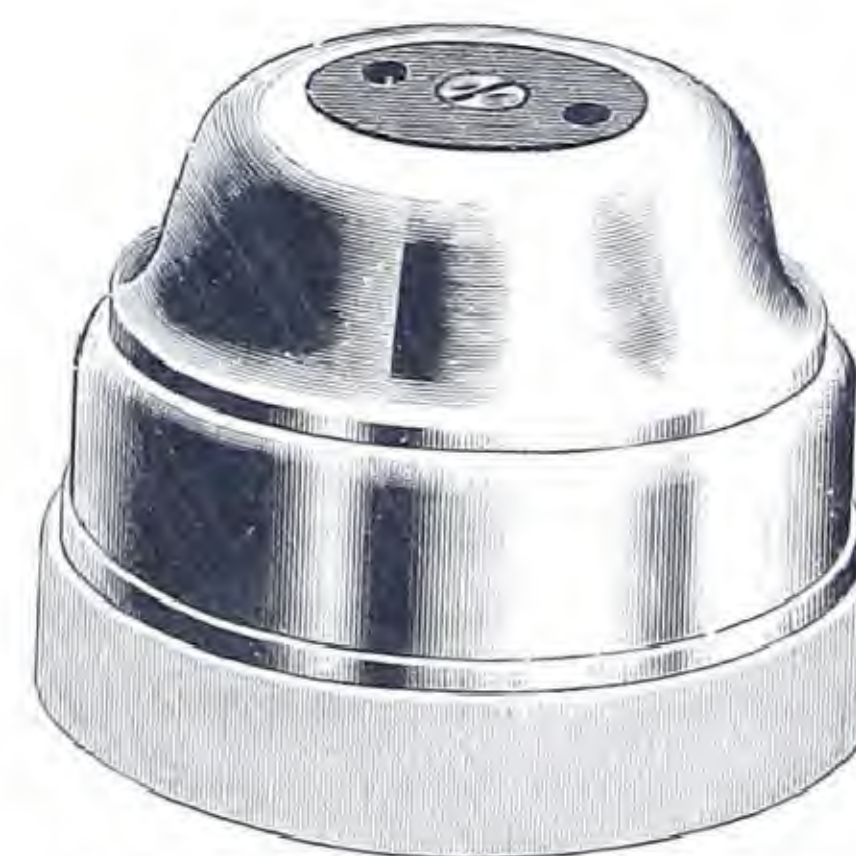
Attaching Plug and Receptacles.



No. 818, Receptacle for Branch Box.



No. 820, Attaching Plug, Hard Rubber.



No. 819, Receptacle on Porcelain Base.

Other Attaching Plugs in the market are very much inferior to the above in respect to carrying and breaking capacity, workmanship and style. The Plug is of hard rubber, handsomely finished.

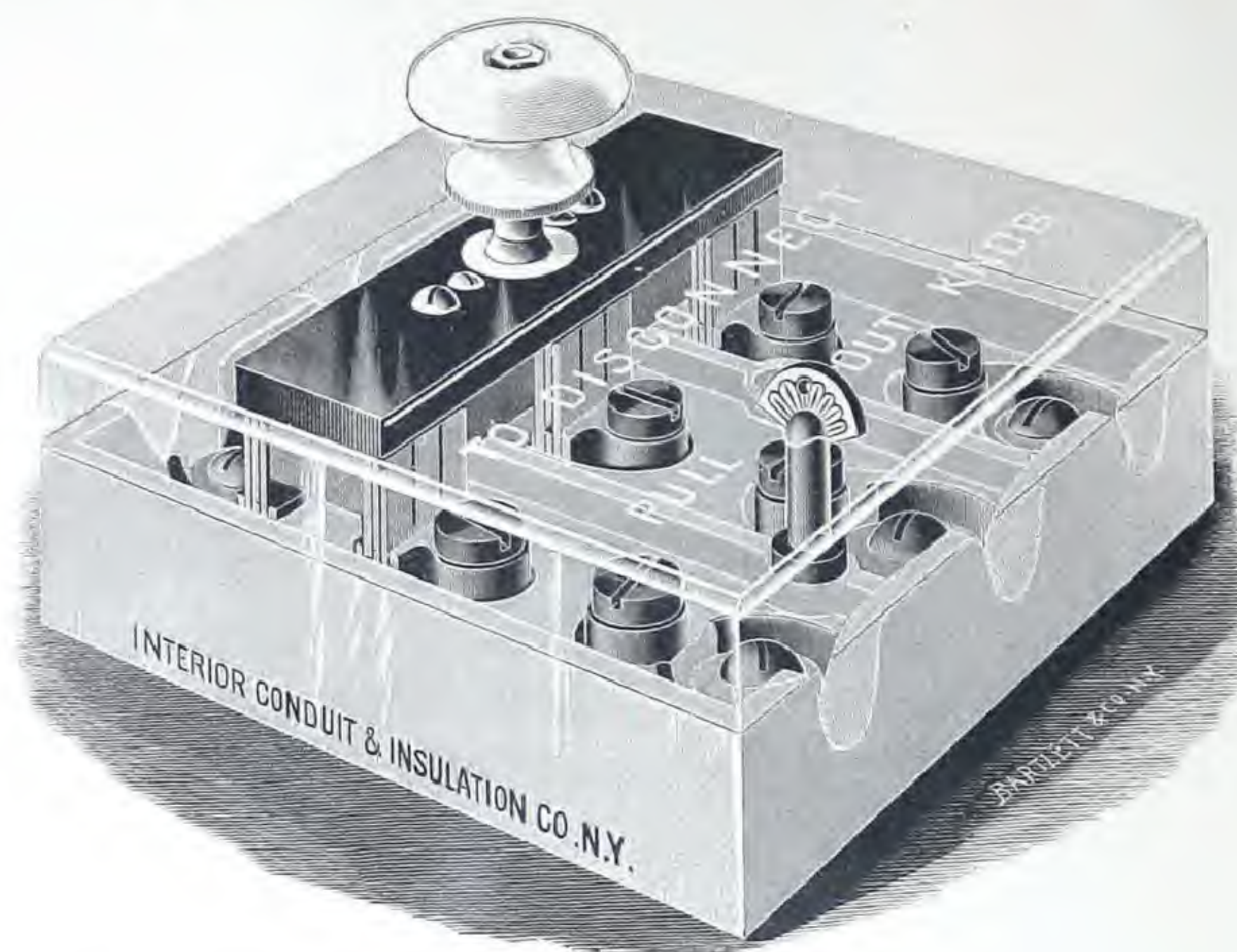
No. 818, Receptacle, including Cover, to fit Branch Boxes, Polished Brass	\$2 75
" 819, " " for surface work, complete, Polished Brass	3 50
" 820, Attaching Plug, Hard Rubber, to fit either Nos. 818 or 819	2 75

General Offices and Show Rooms, 42 & 44 Broad St. Works, 527, 529 & 531 West 34th St., and 526 & 528 West 35th St.

The "V. V." Combined Plug Switch and Main Line Cut-out.

On Porcelain Base for Three Wire System.

No. 888,
Dimensions,
 $7\frac{7}{8}$ inches x $7\frac{3}{8}$ inches.



Capacity,
100 Ampères on
each side.

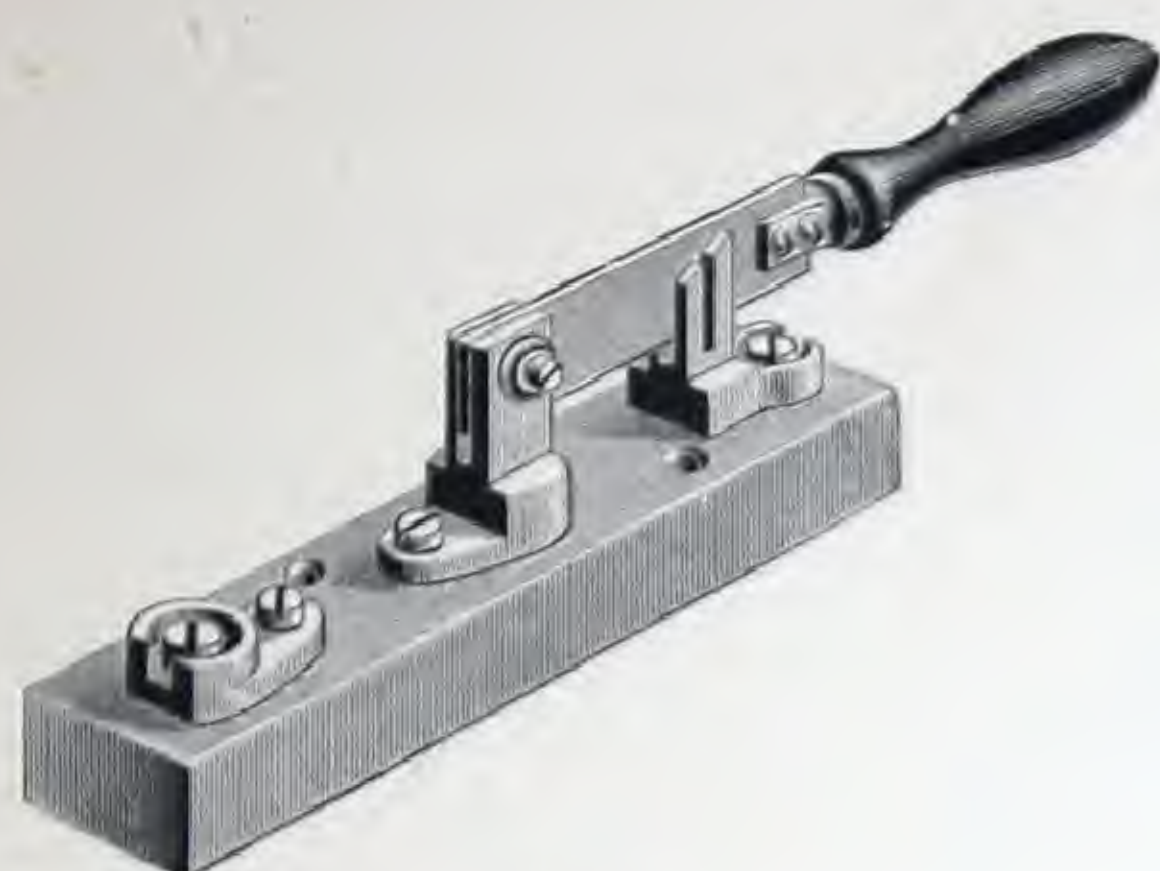
The Fire Underwriters in the principal cities require the placing of a switch and cut-out, in the main line, at the entrance of every circuit entering a building, which can be readily disconnected in case of necessity by the firemen, and when so disconnected insures the current being absolutely shut off. . The above combined Cut-out and Switch fills these requirements in every particular, and many thousands of them are already in use in the large cities.

The use of this appliance is, however, by no means limited to the above particular purpose, and we offer it for general use as the best and Cheapest Three Wire, Main Line Cut-out and Switch, for General Wiring, in the market.

The connections are of Bronze, of ample capacity, with strong screws for the Binding Posts; the contacts made by means of the plug are admirably fitted, and when the plug is withdrawn to open the circuit, the movement is accelerated by means of a strong spring, which is contained in the plug itself, insuring a rapid and complete break with a sharp snap action. The Base, Cover and Handle are of the best Porcelain, and the only exposed portion of the plug is finished Hard Rubber, the whole presenting a neat and attractive appearance.

No. 888, Three Wire Combined Switch and Cut-out, capacity 100 ampères on each side, price \$11 50.

Lever Switches on Slate Bases.



No. 945.



No. 825.



No. 940.

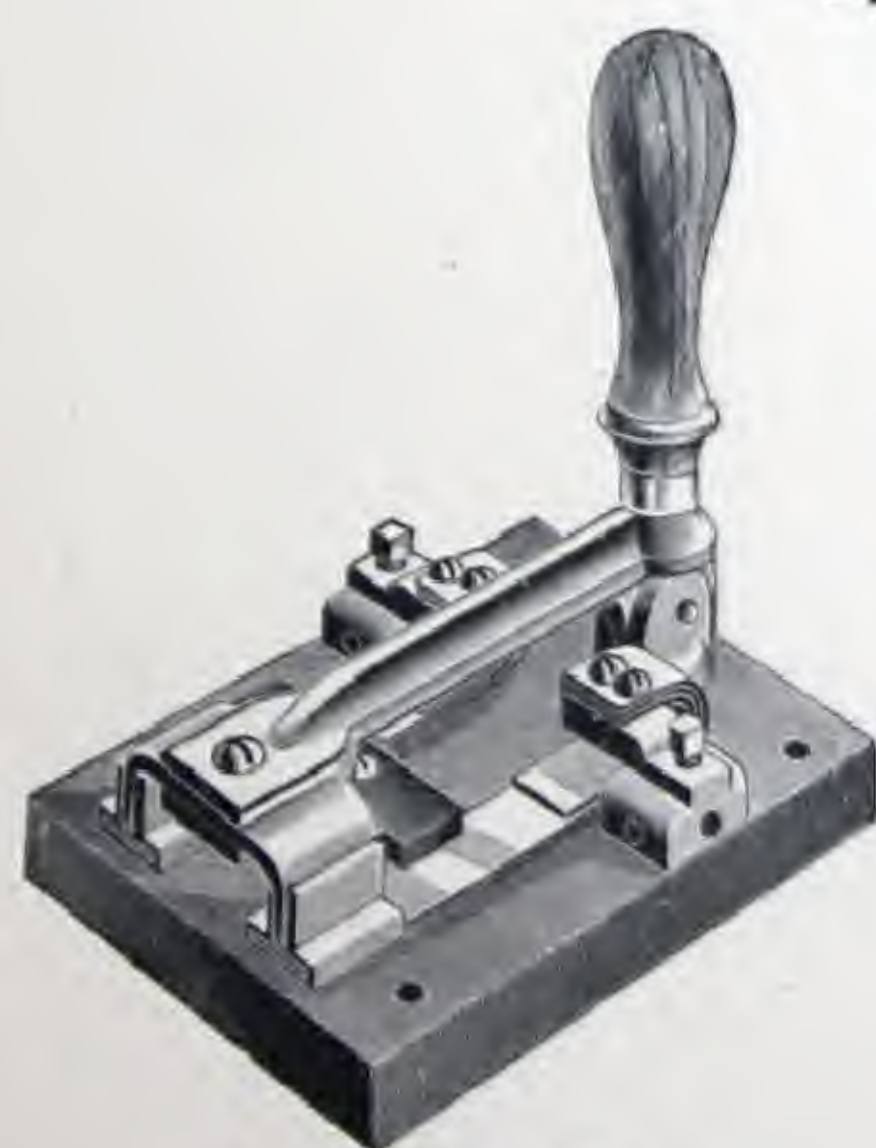
Above illustrated Switches are made in first-class style, substantial, with good spring connections and contacts, handy Binding Posts, and mounted on Paraffined Slate Bases.

Note prices with and without connections for Safety Catches.

No.		50 AMP.	100 AMP.	200 AMP.	300 AMP.
945	Lever Switch on Slate Base, Single Pole, with Cut-out Terminals	\$6 00	\$9 00	\$12 00	\$15 00
945	" " " " " " without " "	5 00	7 75	10 50	13 25
940	" " " " Double " with " "	12 00	18 00	24 00	30 00
940	" " " " " " without " "	10 00	15 50	21 00	26 50
Larger sizes to order.					
825	Separate Connection Lug for Switches, Ampère Meters, etc.	25	35	50	70

In ordering No. 825, state size of hole as well as Ampère Capacity.

Spring Snap Lever Switches on Slate Bases.



No. 931, Single Pole.

This Spring Snap Lever Switch has the advantage that the Blade cannot fall on the contact plates and close the circuit imperfectly. The first contact of the same does not close the circuit, which must be done forcibly and therefore properly.

Price.

No. 931, Single Pole Lever Snap Switch, with cut-out terminals,
50 Ampères \$10 00

Johnson Switches.

Constructed
on an
entirely new
principle.



The smallest
size switch
of like
capacity
in existence.

This cut is the exact size of our No. 960, 50 Ampere, Johnson Switch.

This switch is the product of several years of study and experiment, and embodies, in an extraordinary degree, the essential requisites of a perfect electric switch.

First. It does not depend upon springs for maintenance of contact. The contacts are rigid and held firmly in vise jaws. Heating, arising from any cause, will expand the contact metal between the unyielding jaws and result in more intimate contact, and therefore in reducing the heat; whereas, in all existing switches, such heating takes the temper from the contact springs, and thereby so impairs the contact as to further augment the heating, and effect the final destruction of the switch.

Second. The movement is independent of the contact pressure, therefore, under all circumstances requiring the same force to effect the operation of the switch. Furthermore, the force required is only such as the thumb and finger can easily exert, whatever be the capacity and size of the switch.

Third. The celerity of the opening and closing is so great as to render the switch practically independent of electro-motive force. It will break a high voltage current as efficiently and apparently with as little sparking as one of low voltage.

Fourth. It is so effective that even the huge jack switches employed on dynamos and in stations, are distanced in efficiency, space, cost and general utility. It will inevitably supersede these, to the great advantage of the economy and appearance of dynamo and central station switch boards.

Fifth. Its construction is so simple and so solid as to elicit from a prominent electrician the characterization "engine-made," as distinguishing it from the punch and die work hitherto employed in switch construction.

Sixth. The switch can be connected by simply unscrewing the handle and taking off the cover; but if it is desired to get at the working parts, it is only necessary to take out the central pivotal screw.

Seventh. It costs very much less per ampère capacity than any other switch.

Johnson Switches.

NEAT.

RELIABLE.



CHEAP.

DURABLE.

This cut is the exact size of our No. 962, 100 Ampere, Johnson Switch.

The Johnson Switch will be found especially desirable for motor circuits, having ample capacity for taking care of the quick discharge of the field magnets, when the current is broken.

The "break" of the switch is of such character as to render it applicable for all voltages up to 500.

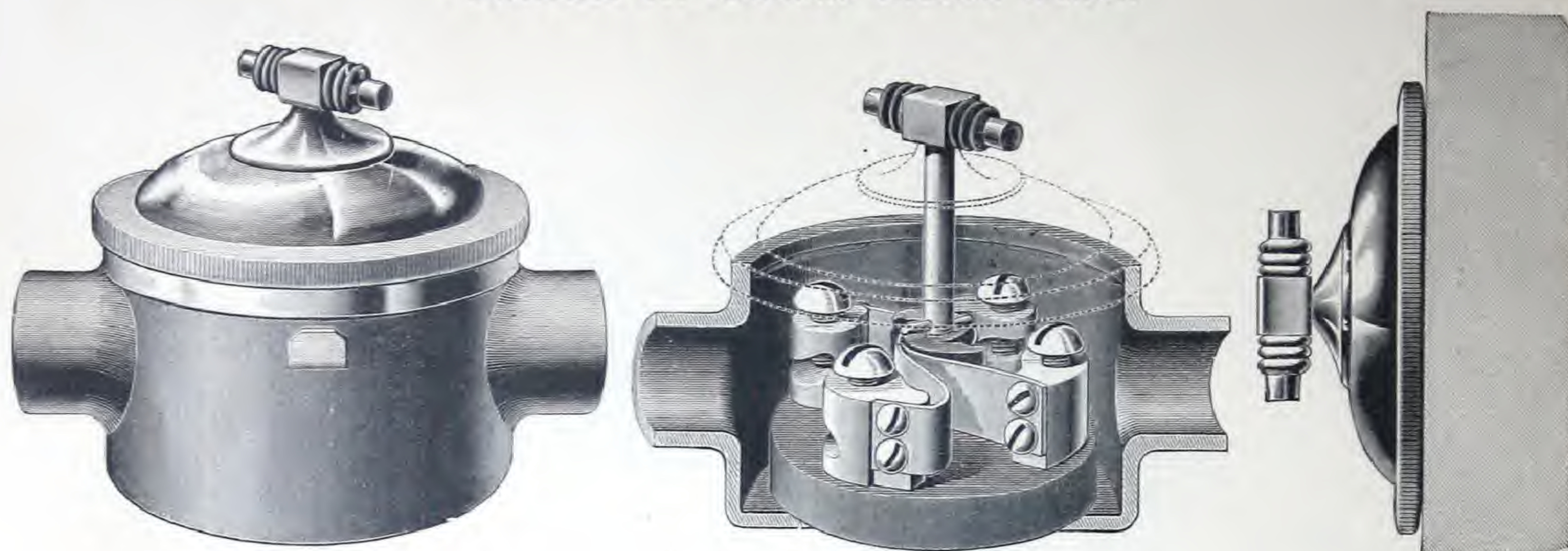
Price List.

No. 960, Double Pole, capacity, 50 ampères,	\$ 5 00
" 962, " " " 100 "	7 00

The switches are mounted on fine Porcelain Bases, and are furnished with Handsome Polished Brass Handles and Covers.

Send for descriptive catalogue No. 6, of Johnson Switches.

Switches for Conduit Branch Boxes.



No. 733, Double Pole.
No. 731, Single Pole.

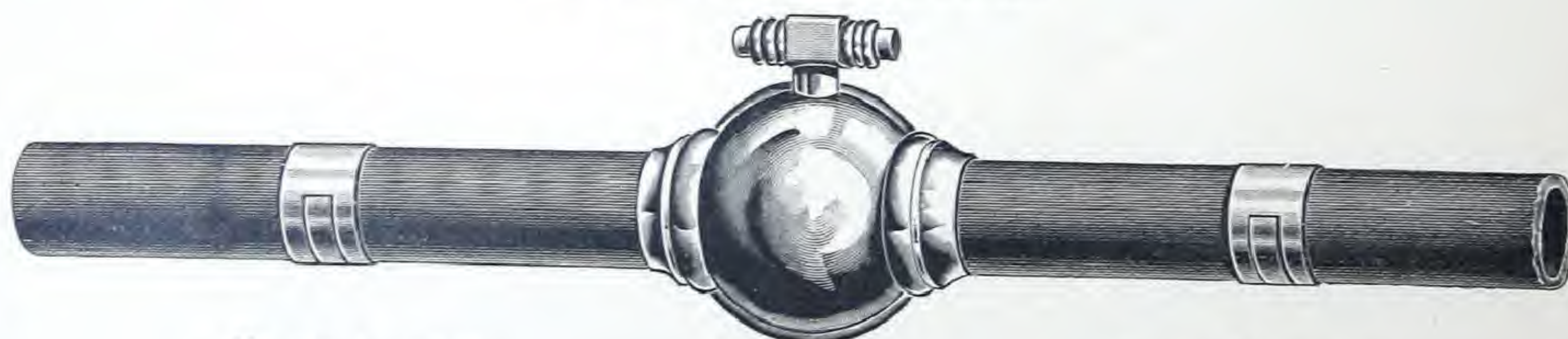
Our Nos. 733 and 731 Switch, illustrated above, is constructed with special reference to use with our Conduit Branch Boxes. It is of a novel and practical construction, which permits of considerable capacity within a small compass, and the minor, but very important details of fastening, connecting, etc., will be found to have been successfully attended to.

Unless specially called for when ordered, we do not supply the Metal cover or the Junction Box shown in the cuts, and our prices do not include same.

Prices.

No. 733, Double Pole Switch for Branch Boxes, capacity 8 Ampères,	\$1 10
" 731, Single " " " " " 4 " "	0 80
Cover for same, (see No. 61) Dipped Brass, 20c. Polished Brass, 25c.	

Switches for Conduits.



No. 743, 1 Ampère.

No. 744, 4 Ampères.

These switches, as shown above can be inserted directly in the tube, which can be threaded into them. They are made for Conduits $\frac{1}{2}$ inch or smaller.

No. 743, Sizes for $\frac{5}{16}$ or $\frac{3}{8}$ Conduit Tubes, capacity 2 Ampères, plain,	\$1 30.	Polished Brass,	\$1 40
" 744, " $\frac{3}{8}$ or $\frac{1}{2}$ " " " 5 " " 2 15.		" " 2 25	

General Offices and Show Rooms, 42 & 44 Broad St. Works, 527, 529 & 531 West 34th St., and 526 & 528 West 35th St

Electric Light Switches on Incombustible Porcelain Bases.



No. 784, Single Pole.
No. 785, Double Pole.
Diameter of Base, $2\frac{7}{8}$ inches.



No. 840, Single Pole.
Diameter of Base, $1\frac{1}{4}$ inches.



No. 787, Double Pole.
Diameter of Base, $3\frac{1}{4}$ inches.

The Best Switches for the Least Money.

We take pleasure in calling the attention of our customers and the public generally to the fact that we are now prepared to supply Electric Light Switches that fill the requirements of such Switches in every respect of size, appearance, workmanship, ease and quickness of connection, ample capacity, and low price. These Switches are all mounted on Incombustible Porcelain Bases, have Brass Covers and Keys, and present a neat and attractive appearance.

Price List.

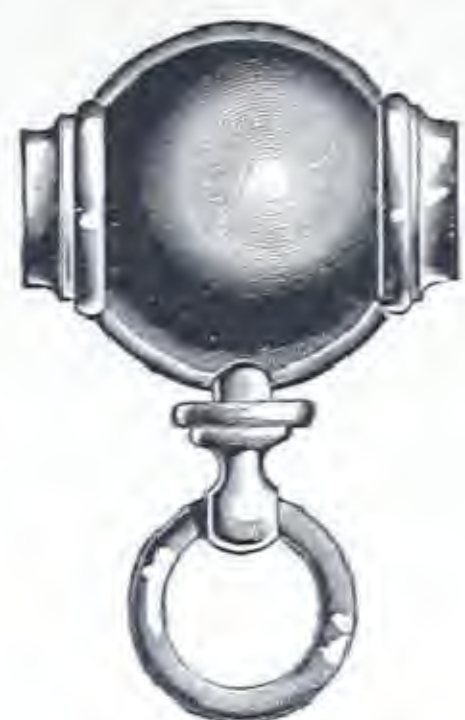
	PLAIN	POLISHED BRASS
No. 840, Single Pole Switch, Capacity 2 Ampères	\$0 52	\$0 55
" 784, " " " " 4 "	80	85
" 785, Double " " " " 8 "	1 10	1 15
" 787, " " " " 20 "	3 00	3 10

In ordering, please specify Catalogue Number, and state whether wanted Plain or Polished Brass. Also, furnished to order with any desired style or finish of Cover and Key.

“Universal” Switches.

Patented.

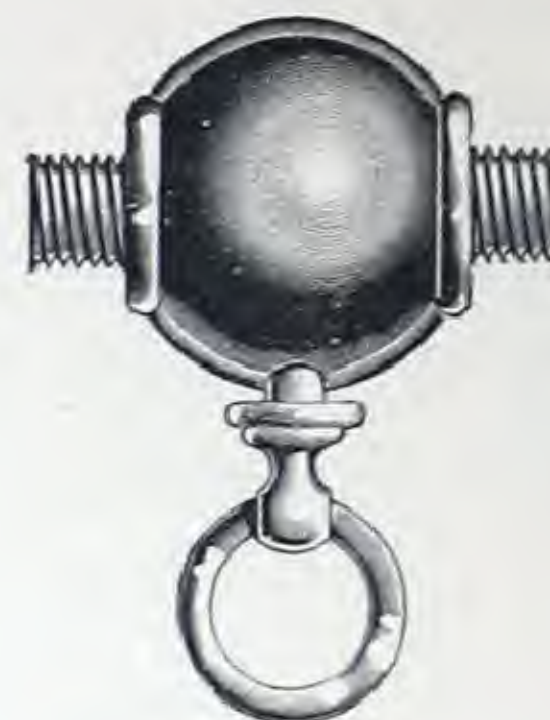
For Electric Light Fixtures and for Conduit Tubes.



No. 740, Female.



No. 741, Male and Female.



No. 742, Male.

Our “Universal” Switches, illustrated above, being designed for insertion in a tube, have two principal uses, viz: for Conduits, and for Electric Light Fixtures.

Its value as a Fixture Switch lies in the fact that it may be embodied in any Electric Light Fixture precisely as a gas cock is embodied in every gas fixture, giving similar advantages, and we call the particular attention of Manufacturers of Electric Light Fixtures to the fact that these Switches are constructed with practical reference to the requirements of the process of manufacturing Fixtures. The electrical parts are separable from the supporting frame, which can be cemented, soldered or brazed into the Fixture and undergo every process that Fixtures are ever put through in their making and finishing.

Price List.

No. 740, Female Threads,	}	Capacity, 2 ampères. Thread Sizes up to ½ inch, Brass.	{	Each, plain	\$1 20
“ 741, Male and Female,				Lots of 100	1 10
“ 742, Male Threads,				“ 500	1 00



No. 745.

Key Socket made with
No. 741, Universal Switch.

The Keys shown in Nos. 740, 741 and 742 are not included in above prices, but we furnish the Switches with the Stem threaded, ready for the reception of whatever Key manufacturers of Fixtures may desire to put on.

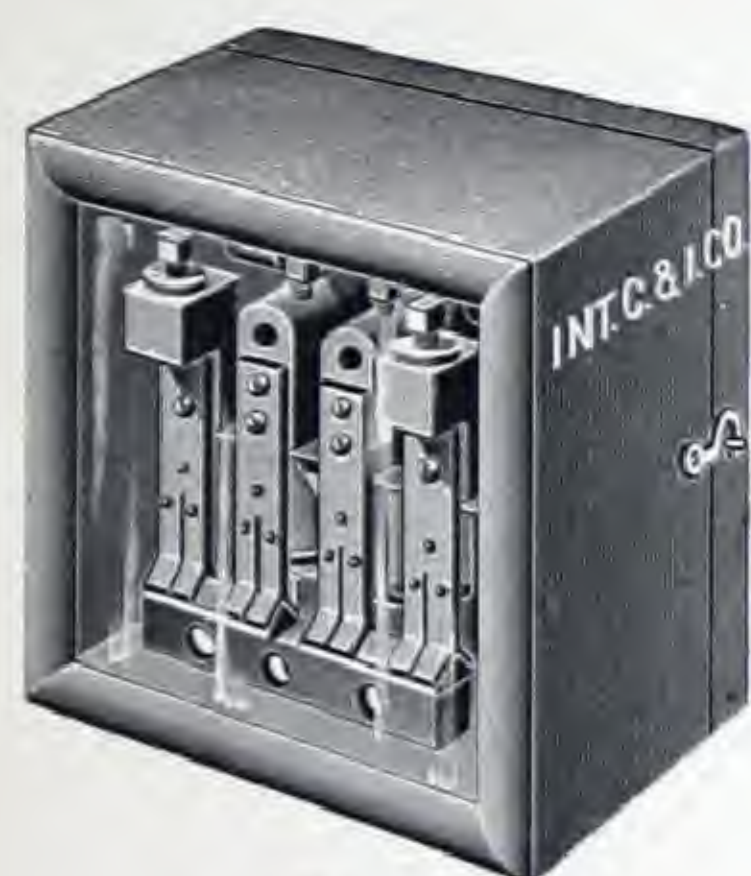
N. B.—All Manufacturers of Electric Light Fixtures should be prepared to furnish Fixtures supplied with our “Universal” Switches, as we have placed no restrictions whatever on their sale, and supply them to all purchasers.

Automatic Switches.

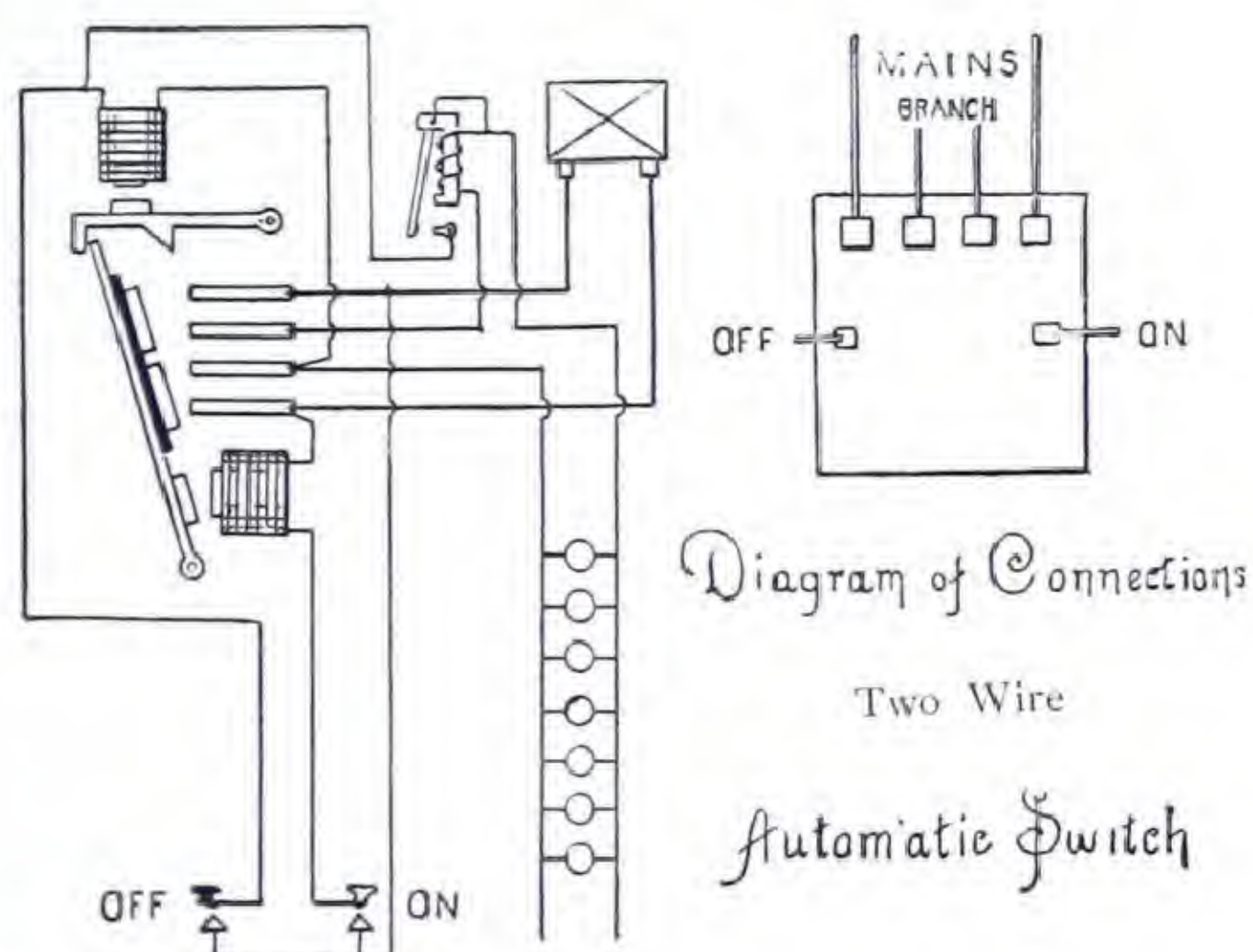
Patented.

For Two or Three Wire Systems.

A switch, by means of which an Electric Light or Motor Circuit of any quantity or electro-motive force may be controlled from any number of points, without the necessity of carrying the Main current wires to such several points, has been so long recognized as a valuable but *missing* appliance, that the mere announcement of its existence and availability will be welcomed as a relief by all Electric light and Motor Contractors, to whom the problem of multiplying the points of control has so often proven a vexation.



No. 850.
Automatic Switch.



No. 856.
Push Button
for
Automatic Switch.

The new Automatic Switch, which we illustrate above and now bring to the attention of our customers and the public, is as effective and absolute in its action as the best hand switch, and is operated by means of ordinary Single Push Buttons located wherever it is desired to have control of a given circuit and connected with the Automatic Switch by means of the smallest size wires. As these wires carry but a fraction of an ampère, they may run any distance and ramify throughout the largest building without regard to their Carrying Capacity.

To give some idea of the value of this new appliance, we enumerate some of the advantages accruing from its use.

For Price List see page 34.

Advantages of Using our Automatic Switches.

First.—Great Economy of Copper and Labor in wiring by the substitution of small wires of uniform size for the Heavy Main current wires, which otherwise would have to be brought within reach, very often greatly out of their natural channel.

Second.—Great added convenience by being enabled to switch on the lamp or motor from *one* point and turning them off from *another*.

Third.—Complete Command of the entire current supply of a House, Store, Factory, etc. by placing our Automatic Switch between the Meter and the Street service, thereby rendering the premises absolutely free from the suspicion of Fire, as well as preventing any waste of current during the hours when none is required.

Fourth.—As an unexcelled Burglar Alarm, the controlling circuit may be connected with the Burglar Alarm wires; or Push Buttons may be located within reach of the Street Patrol; or a Clock may periodically operate the Switch; or the circuit may be extended by connection with a Central Office protective service; the operation resulting in a brilliant illumination of the Premises of course, to the utter rout and confusion of the burglar.

Fifth.—The Automatic control of Water Supply by means of a float placed in the Reservoir. The Motor and Pump may be in the cellar, and only a couple of small wires carried to the Reservoir. The pump may also be controlled in the same way at other points than the tank, frequently a desirable object.

Sixth.—For Signal or even Switching purposes, on Railways, this Switch would prove a great acquisition. The Signals may be operated by small Motors or powerful Magnets, and the

Switches by still more powerful means, and the Heavy Currents required for such work kept entirely within the Confines of the Switch or Signal house, where they can be reliably protected. Only the small wires, easily cared for in every way and indifferent to distance, need be carried to the distant point from which Control is desired. Furthermore, the required Contact being so trifling, the hitherto difficult problem of effecting it reliably becomes simple.

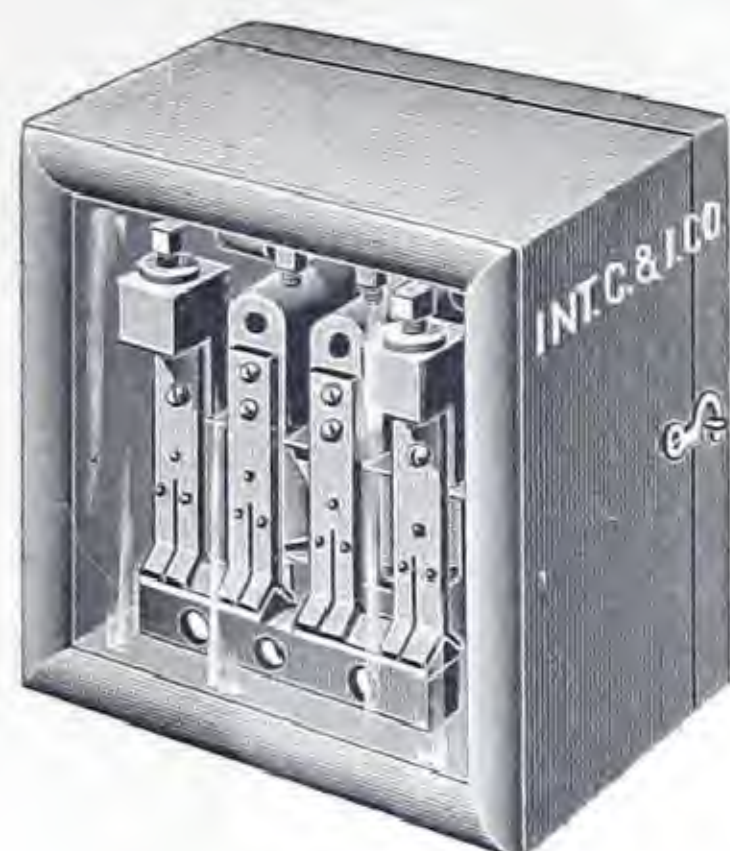
Seventh.—In private house lighting and ventilating, the importance of minimizing the Number of Switches (which either require expensive pockets or offensively obtrude themselves upon the walls) is very great. By means of this Switch, all the Circuits may be controlled by Switches located in one place, say in the Cellar, where they can be rendered perfectly safe, and only the neat and ornamental Push Button is located in the Halls or Rooms from which the Control of the currents is required. At night, or at any time when the current is not required, the Electric light currents may be entirely isolated from the house, and yet by means of the Push Buttons controlling the Automatic Service Switch they may be brought in again instantaneously when wanted. Risk of Fire from the currents is, of course, cut off with the Current itself.

Eighth.—In country houses, the control of Lawn and Drive lamps from the gate, the stable, or the house at will, is a great Desideratum as well as a great Economy. The fact that such lights may be automatically turned on or off by the clock or by the opening and shutting of the gate, almost renders their employment in such lighting a necessity. The same Automatic Control of the lights on the opening or shutting of the front door of a residence may be had, and will often be a great Convenience.

In short, there is no apparent Limit to the uses to which this handy means of controlling unlimited Power from any distant point or points in Residences, Stores, Factories, Theatres, Halls and Public and Private Buildings, by means of a Current no stronger than is usually employed for Signalling purposes, may be applied.

Patent Automatic Switch and Automatic Cut-out or Protector.

Approved and Endorsed by Insurance Experts.



No. 850.

Automatic Switch described on
preceeding pages.



No. 856.

Double Push Button.



No. 860.

Automatic Cut-out or Protector
for use with our Automatic
Switch, No. 850.

The combination of this Simple and Reliable Cut-out with our No. 850 Automatic Switch opens up a large additional field for usefulness for it. Its value may be summed up in the broad statement that it is

A Perfect and Infallible Cut-out,

accomplishing in fact, what all other Cut-outs are designed to do in theory, but fail, viz: To be Safeguards against Fire, Burning out Armatures, Destroying Circuits, etc.

Some of its Advantages and New Uses Are:

It can be set to open circuits *instantly* at any fixed Overload, from one ampère up, and it will absolutely do so whenever the overload occurs, from a short circuit or any other cause, averting the Danger arising from the fact that ordinary safety Cut-outs have to be made double the capacity that they ought to have, because otherwise they might give out and put out the lights when there is really No Danger.

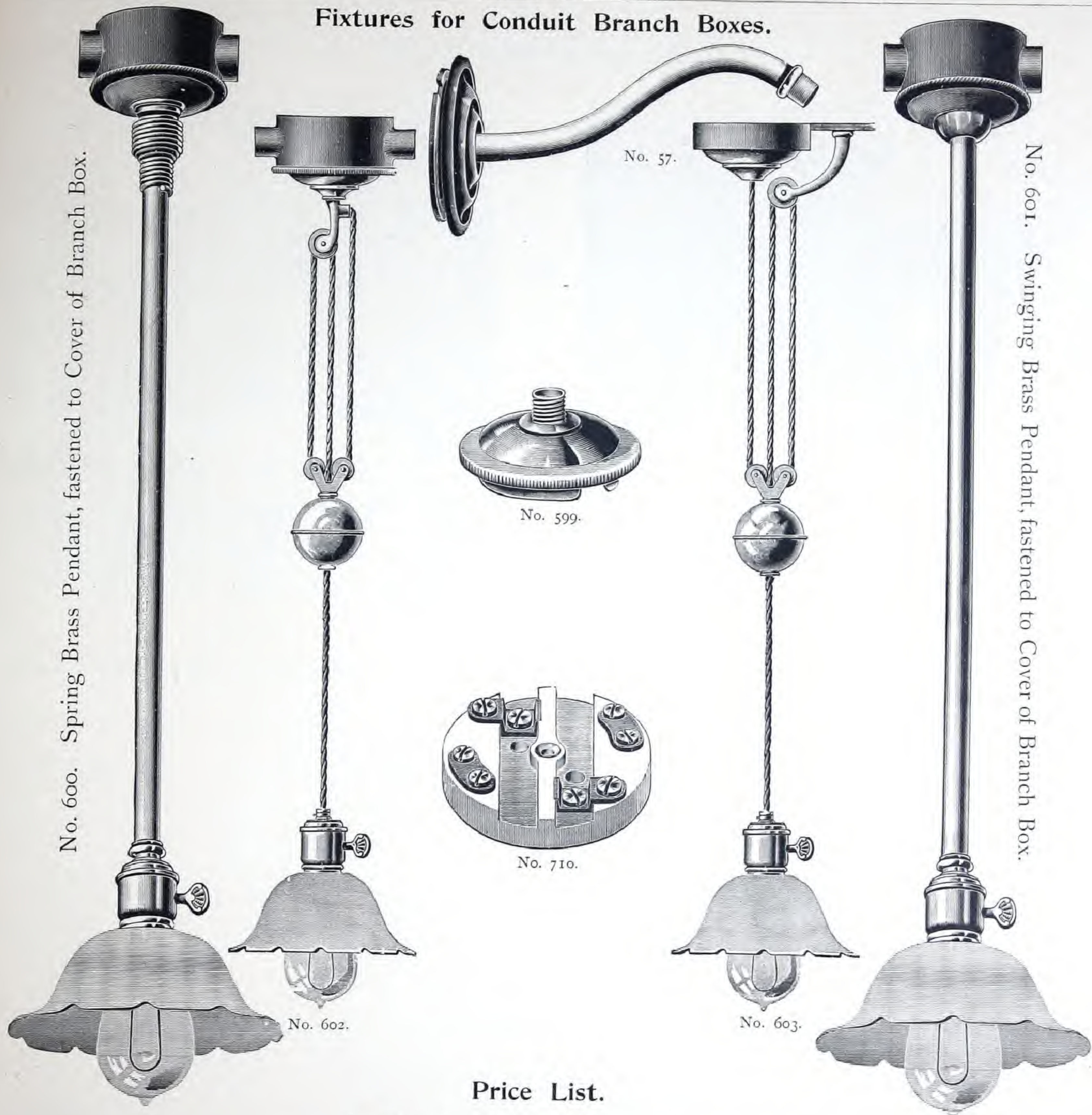
When this improved Cut-out operates it is not, like others, Destroyed. On the contrary, it automatically re-sets itself instantly, but prevents the Passage of any Current until the overload or trouble is removed, when the whole Circuit may be again set into operation by simply pressing the Push Button that controls the Automatic Switch.

Price List.

No. 850, Automatic Switch, Capacity 50 Ampères, Total Capacity, two or three wire	\$35 00
" 851, " " " 100 " " " " " "	47 50
" 853, " " " 200 " " " " " "	95 00
" 856, Double Push Button for use with Automatic Switch	4 00
" 860, Protector or Cut-out " " " of 50 ampères	19 50

Unless otherwise ordered, we make the Automatic Switch for 100 volts. We can make it of any desired voltage from 50 to 250.

Fixtures for Conduit Branch Boxes.

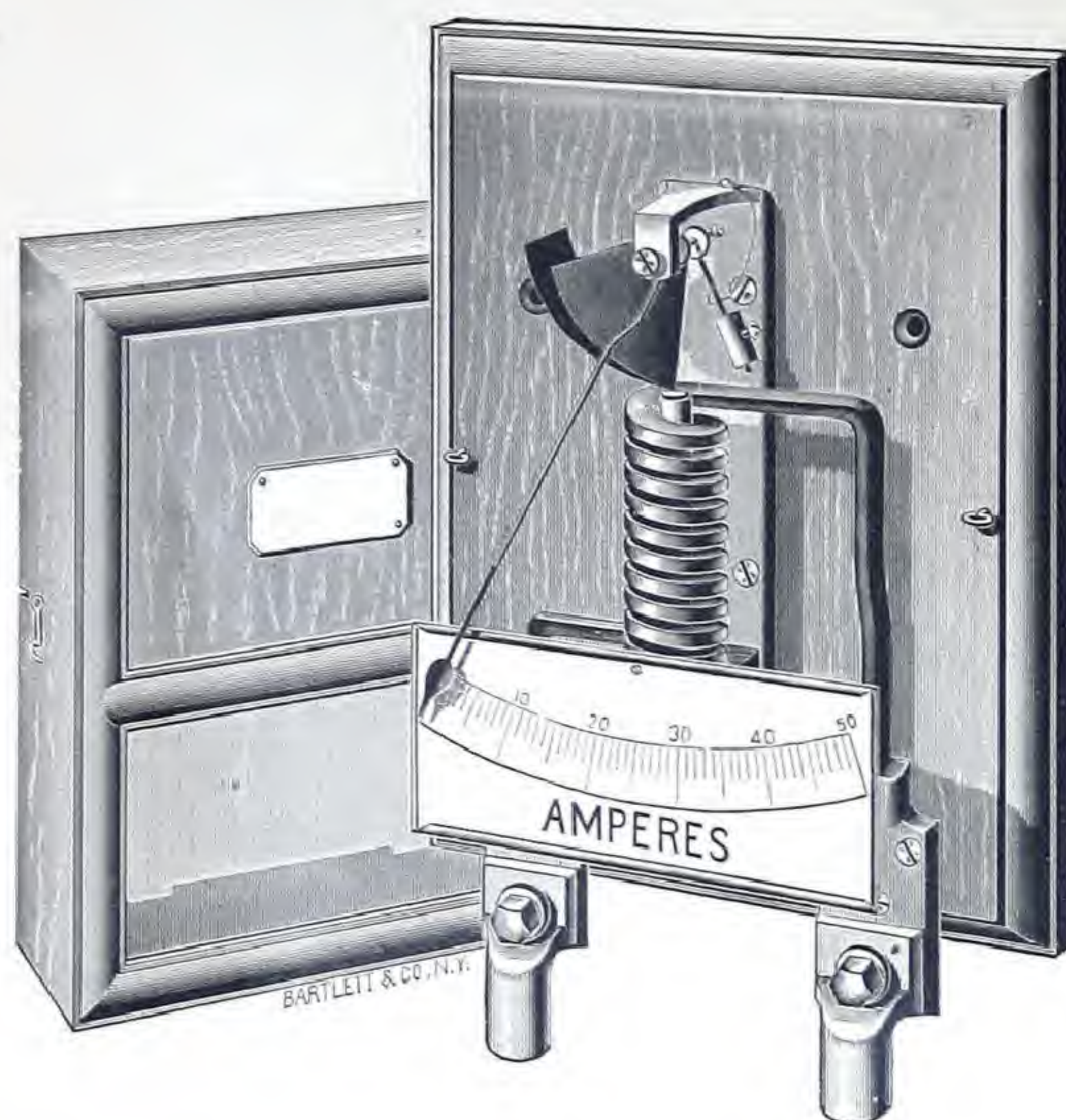


Price List.

		$\frac{3}{8}$	$\frac{7}{16}$	$\frac{1}{2}$
No. 600, 3 ft. long to nozzle.	{ Plain,	\$2.15	\$2.35	\$2.60
	{ Pol. Brass,	2.35	2.65	3.00
No. 601, 3 ft. long to nozzle.	{ Plain,	2.15	2.35	2.60
	{ Pol. Brass,	2.35	2.65	3.00
Extra length on above per ft.	{ Plain,	.32	.36	.40
	{ Pol. Brass,	.35	.40	.45
No. 57, of $\frac{3}{8}$ tube, Plain, \$1.25; Pol. Brass, \$1.40,				
No. 599, for $\frac{1}{8}$ Sockets, Plain, 25c.; Pol Brass, 30c.				
Including Brass Cover as shown to fit regular Branch Boxes.				

No. 602. Branch Box Cover with pulley and weight-ball, for Flexible Cord Slide, Plain, \$2.75; P. B., \$3.00
 No. 603. Bracket with pulley and weight-ball for Flexible Cord Slide, Plain, \$2.50; P. B., \$2.75
 Above fixtures, fastened as shown, to covers of Branch Boxes, will have the cut-outs in the Branch Boxes, and for the purpose we furnish our Double Pole Porcelain Fixture Cut-out No. 710. See page 18.

Pendulum Ampere Meters.



Price List.

No. 1100. Pendulum Ampère Meter on Mahogany Base with Glass Cover.

Size A, Capacity 10 Ampères	.	.	\$23 00
" B, " 25 "	.	.	23 50
" C, " 50 "	.	.	24 50
" D, " 100 "	.	.	26 00
" E, " 200 "	.	.	28 00

We can furnish same pattern of Ampère Meters, mounted on Slate Bases, or in any special form to order, for which we will be pleased to make estimates on application.

We give below some of the advantages of our New Ampère Meters illustrated above:

First.—Extremely low price for an accurate, reliable instrument.

Second.—Very open reading throughout the *entire* scale.

Third.—Fixed indication, without Oscillation—a very valuable quality, especially in ship Lighting.

Fourth.—It does not change its Scale.

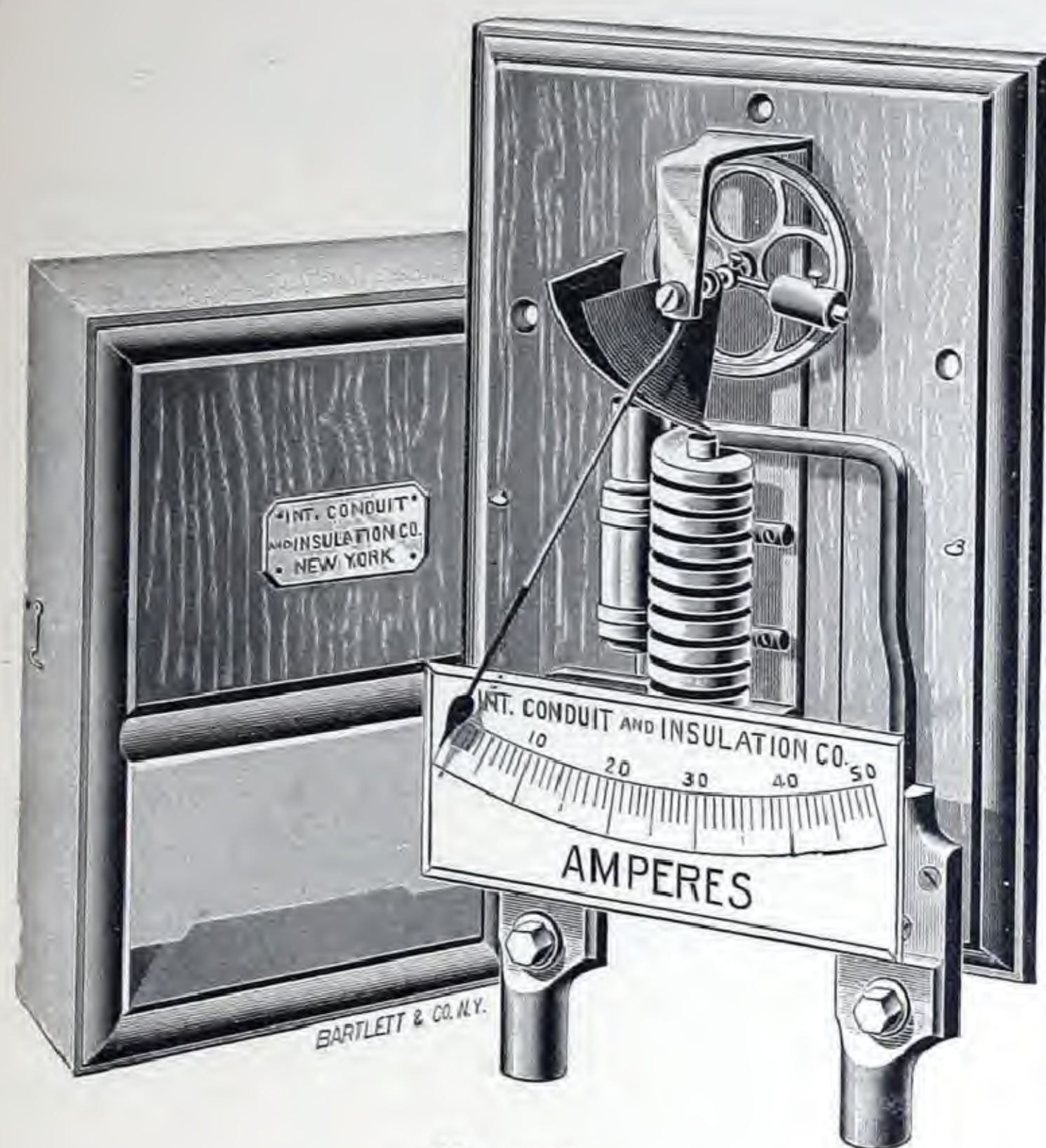
Fifth.—It is Small, Compact and Neat, while retaining all the valuable properties of a long, easily read Scale.

Sixth.—It is simple in construction and composed of a very small number of parts.

Seventh.—All the working portion of the instrument forms one complete whole, without any separate parts; that is, it can be taken off its base, if desired, as a single piece, for mounting on a Switch Board for instance, or in any place where it may be necessary to economize room. For this purpose we can supply it without the regular Base and Cover, making the proper allowance therefor.

Eighth.—It is, in short, the Best as well as Cheapest Ampère Meter in the market.

The Johnson Dead-Beat Ampere Meter.



No. 1110.

This is the only absolute dead-beat ampère meter in the market. The result so long sought for is accomplished in this instrument in a remarkably effective manner by the application to our already well-known ampère meter of a dash pot of peculiar construction. In this novel form of dash pot, air washing of the piston is the only friction imposed; the friction, therefore, becomes a practically constant quantity, rendering the instrument an accurate indicator under all conditions of time, place and use.

Violent changes of current are instantly indicated and noted with as ready facility, as are gradual changes in the ordinary forms of ampère meters. The instrument is therefore peculiarly adapted to use in connection with Motors and Power Stations.

As the metal of the two interlocking pistons is never in actual contact, no disarrangement is possible, and nothing exists to impair the delicacy of operation so essential to accurate work, or to retard the return of the needle to zero.

The needle being actuated by an electro magnet, and its armature being always in a strong magnetic field, is not influenced by currents in its vicinity.

The extremely low resistance of the coil also merits attention; a 25 ampère instrument, for instance, measuring only .005 of an ohm.

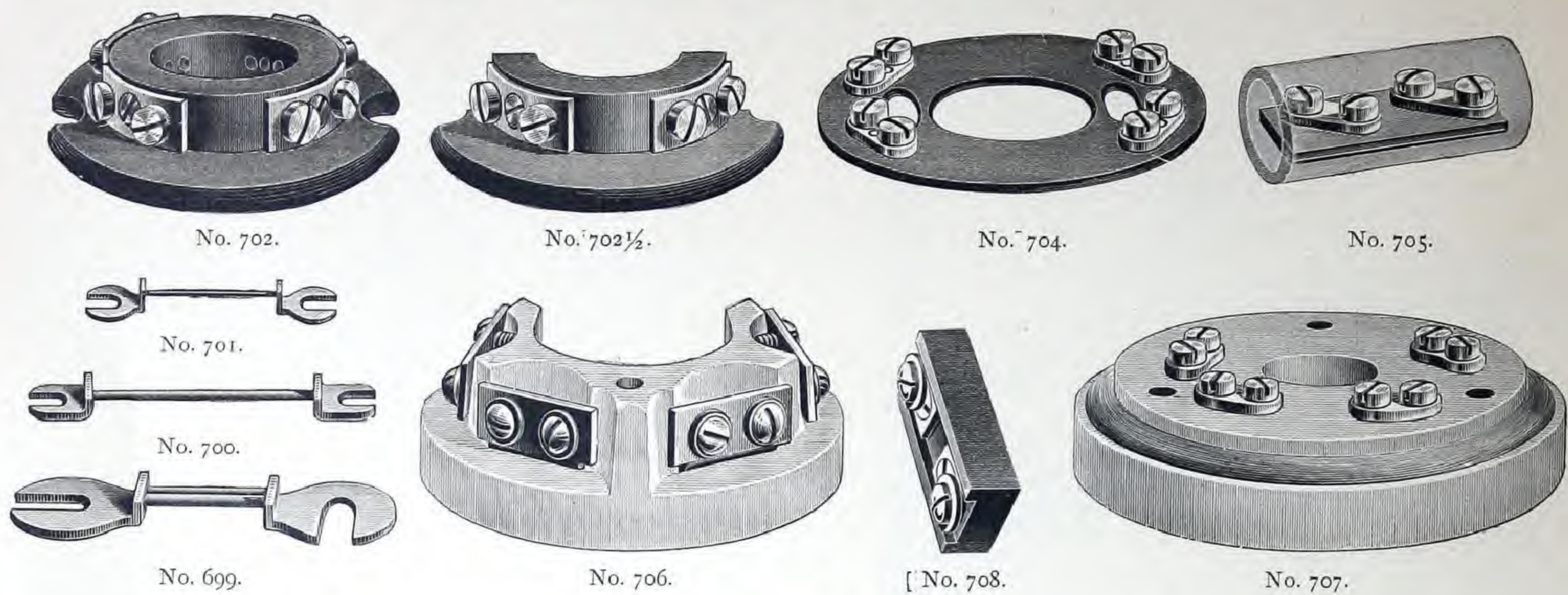
These essential qualities, it will furthermore be observed, are obtained at a cost so trifling as to enable us to offer the instrument at a lower figure than is paid for many instruments in which they are wholly absent.

Price List.

No. 1110—Dead-Beat Ampère Meter on Mahogany Base with Glass Front and Cover.			
Size A, Capacity 10 Ampères			\$30 00
" B, " 25 "			30 50
" C, " 50 "			31 50
" D, " 100 "			33 00
" E, " 200 "			35 00

We can furnish the above pattern of Ampère Meters, mounted on Slate Bases, or in any special form, to order, for which we will be pleased to make estimates upon application.

Fixture Cut-outs and Safety Catch Fuses.



Above we illustrate approved and practical forms of Cut-outs or Safety Catches, designed specially for Fixture Work. The cuts are nearly full size, excepting No. 707, which is furnished in various sizes as ordered.

Price List.

No. 702,	Double Pole Safety Catch, with Fibrette Base	35c.
" 702½,	Single " " " " " "	20c
" 704,	Double " " " " " "	25c
" 705,	Single " " " " " and Tube Cover	25c
" 706,	Double " " " " " Porcelain Base	46c
" 708,	Single " " " " " Hard Rubber Base	19c
" 707,	Double " " " " " Wood Base, prices on application according to size and kind.	

Above prices do not include Safety Catch Leads, prices of which are as follows:

No. 701,	2 to 6 Ampères, with Copper Terminals	6c.
" 700,	2 to 15 " " " " " "	9c.
" 699,	2 to 30 " " " " " "	12c.

Sockets for Miniature Lamps.



No. 650.

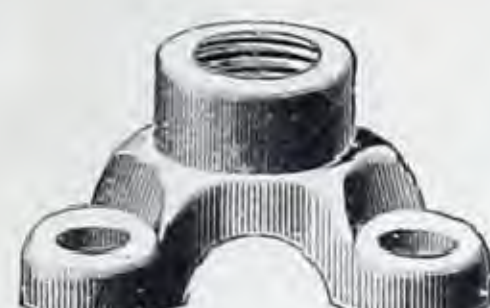
No. 650, illustrates our neat and practical Miniature Lamp Socket. It is made of Fibre with brass screw terminals for the wires as shown. The lamp terminals are an outside bayonet lock shell and a center spring pin, insuring first-class electrical contact and securing the lamp, so that it cannot fall or be knocked out.

No. 650, Miniature Lamp Socket	90c.
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Open Ceiling or Wall Flanges.



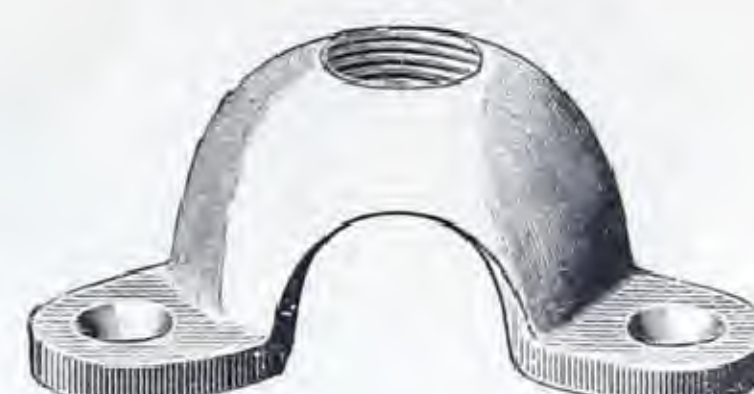
No. 1,004.



No. 1,006.



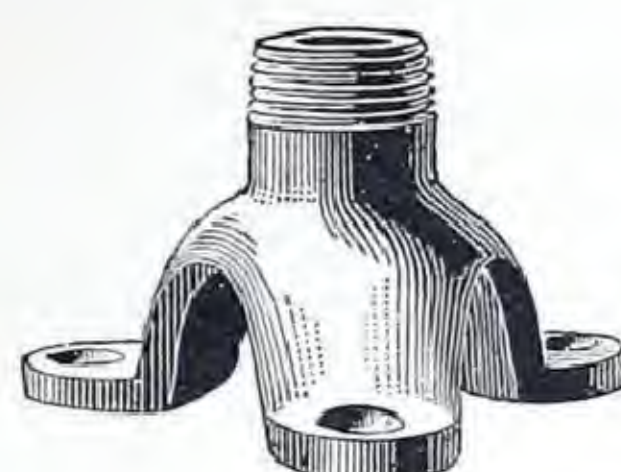
No. 1,003.



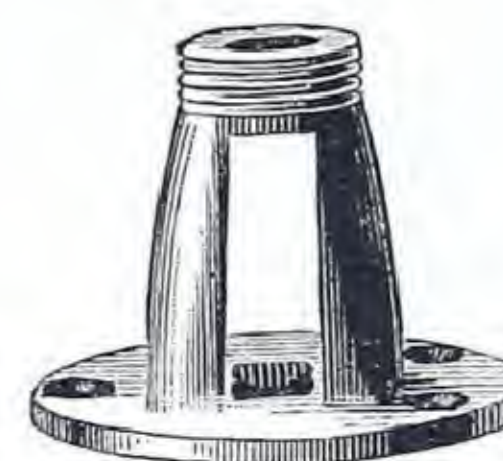
No. 1,007.



No. 1,001.



No. 1,002.



No. 1,000.

Malleable Iron.

No. 1,004,	Flange (for use with Sliding Shells),	$\frac{1}{8}$ to $\frac{3}{8}$	.	.	.	.	.	.	.	.	.	.05
" 1,006,	"	"	"	"	"	"	.	.	.	.	.	.05
" 1,003,	"	"	"	"	"	"	.	.	.	.	.	.05
" 1,007,	"	"	"	"	"	$\frac{1}{4}$ to $\frac{1}{2}$	.	.	.	.	.	.07
" 1,000,	"	"	Threaded	"	$\frac{1}{8}$ to $\frac{1}{4}$	"	.	.	.	.	.	.12
" 1,001,	"	"	"	"	"	"	.	.	.	.	.	.12
" 1,002,	"	"	"	"	"	"	.	.	.	.	.	.07



No. 800.



No. 812.



No. 801.



No. 816.



No. 817.



No. 802.

No. 800,	El Attachment for Gas Fixtures, P. B.	.	.	.	.	.	.	.	.	.25
" 812,	Holder for El Sockets, $2\frac{1}{4}$ inch, plain, 9c., polished brass	.	.	.	.	.	.	.	.	.13
" 801,	Hard Rubber Bushing for Sockets, $\frac{3}{8}$ x $\frac{1}{4}$ or $\frac{1}{8}$, 10c., $\frac{1}{4}$ x $\frac{1}{8}$	.	.	.	.	.	.	.	.	.07
" 816,	Hard Rubber Nozzle for Sockets, $\frac{1}{8}$ x $\frac{1}{8}$, 10c. Other sizes to order.	.	.	.	.	.	.	.	.
" 817,	Soft Rubber Cork for Sockets, to fit $\frac{1}{8}$, for flexible cords	.	.	.	.	.	.	.	.	.04
" 802,	Spring Nozzle for Sockets $\frac{3}{8}$ x $\frac{1}{8}$	.	.	.	.	.	.	.	.	.33

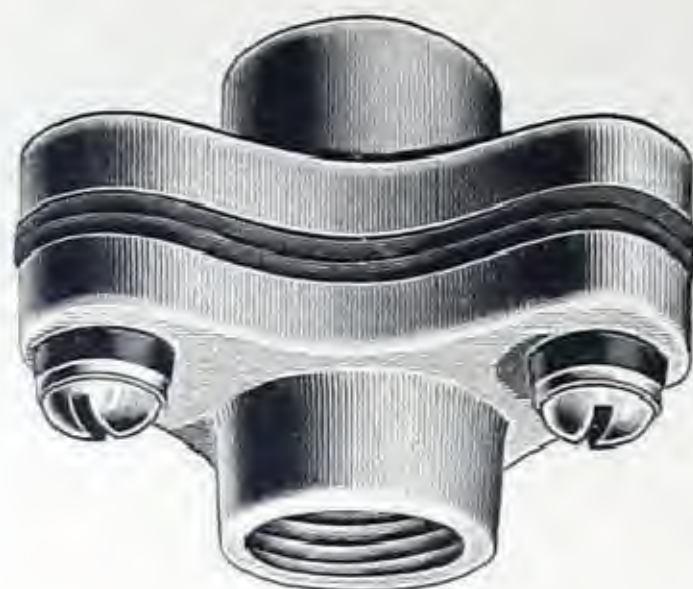
Insulating Joints.



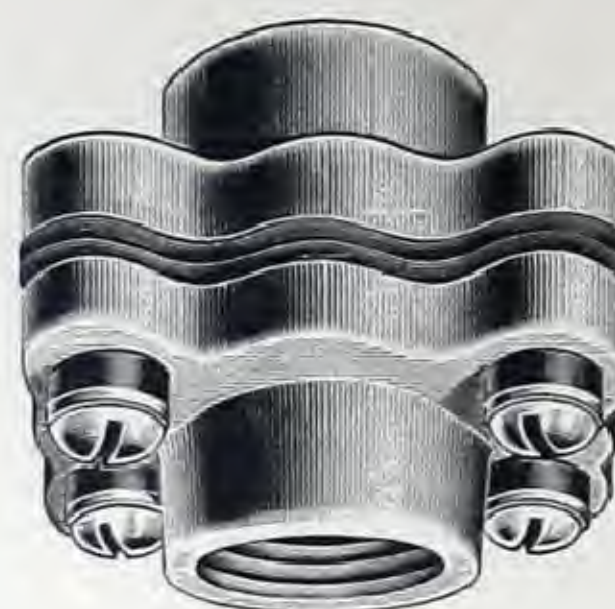
No. 501.



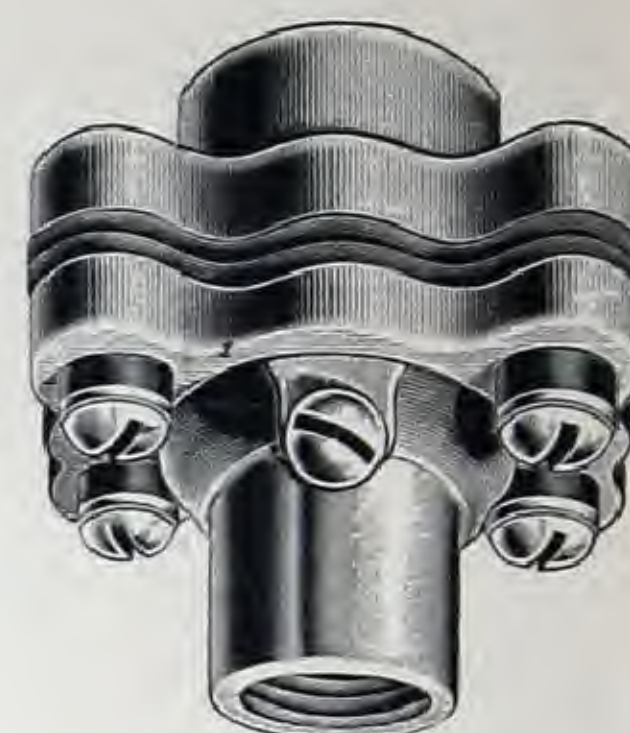
No. 502.



No. 503.



No. 505.



No. 504.

We recommend our Insulating Joints, illustrated above, as the *Best in the Market* for many reasons.

They are well made, strong, neat and compact, permitting the use of small covering shells. We use an insulating material of our own which is a true insulator of very high electrical resistance, which it permanently retains, and is impervious to gas. These joints are not only gas tight when delivered, but remain so, needing no looking after, tightening up, etc., after being for a while in use.

Price List.

No. 501,	Brass	Insul. Joint,	sizes from	$\frac{3}{8}$ inch	x	$\frac{1}{8}$ inch,	to	$\frac{3}{8}$ inch	x	$\frac{3}{8}$ inch	.	.	.66			
No. 502,	Iron	"	"	"	"	$\frac{3}{8}$ "	x	$\frac{1}{8}$ "	"	to	$\frac{3}{8}$ "	x	$\frac{3}{8}$ "	.	.	.52
	Brass	"	"	"	"	$\frac{3}{8}$ "	x	$\frac{1}{8}$ "	"	to	$\frac{3}{8}$ "	x	$\frac{3}{8}$ "	.	.	.66
No. 503, Also made for Electric only.	Iron	"	"	"	"	$\frac{3}{8}$ "	x	$\frac{1}{8}$ "	"	to	$\frac{3}{8}$ "	x	$\frac{3}{8}$ "	.	.	.60
	Brass	"	"	"	"	$\frac{3}{8}$ "	x	$\frac{1}{8}$ "	"	to	$\frac{3}{8}$ "	x	$\frac{3}{8}$ "	.	.	.82
No. 505,	Brass	"	"	"	"	$\frac{1}{2}$ "	x	$\frac{1}{4}$ "	"	to	$\frac{1}{2}$ "	x	$\frac{1}{2}$ "	.	.	1.50
No. 504A,	Brass	Insul. Ball Joint	sizes from	$\frac{3}{8}$ "	x	$\frac{1}{4}$ "	"	to	$\frac{1}{2}$ "	x	$\frac{3}{8}$ "	"	.	.	2.40	
No. 504B,	"	"	"	"	"	$\frac{1}{2}$ "	x	$\frac{1}{2}$ "	"	to	$\frac{3}{4}$ "	x	$\frac{1}{2}$ "	.	.	4.75
No. 504C,	"	"	"	"	"	$\frac{3}{4}$ "	x	$\frac{3}{4}$ "	"	to	1 "	x	$\frac{3}{4}$ "	.	.	9.75
No. 504D,	"	"	"	"	"	1 "	x	$1\frac{1}{4}$ "	"	to	$1\frac{1}{4}$ "	x	1 "	.	.	11.75

N. B. In ordering, be careful to state whether joints are wanted for "Electric only" fixtures or "Combination," and also whether Brass joints or Iron ones are wanted.

Combined Insulating Joints and Cut-outs.

Patented February 10th, 1891.

Our extensive experience with Cut-outs for Electric Light Fixtures has demonstrated conclusively that the only safe way to put them on is to fasten them immovably to the Fixture in such a way that grounds or short circuit of the terminals cannot occur. The usual make-shift of wrapping the Safety Catches with Tape is sure to result in a fire sooner or later.

Our illustrations show at a glance the proper method of applying Safety Catches to Fixtures. The Covering Shell of the Fixture is the proper cover for the Safety Catch, and with our Combined Insulating Joint and Cut-out, it cannot come in contact with the terminals and cause either Grounds or Short-Circuits.

Endorsed by Insurance Experts.

Price List.

No. 501½,	Brass	Combined	Joint and	Cut-out,	sizes	⅜	inch	x	⅛	inch	to	⅜	inch	x	⅜	inch,	\$1 06
No. 502½,	Iron	"	"	"	"	⅜	"	x	⅛	"	to	⅜	"	x	⅜	"	92
	Brass	"	"	"	"	⅜	"	x	⅛	"	to	⅜	"	x	⅜	"	1 06
No. 503½,	Iron	"	"	"	"	⅜	"	x	⅛	"	to	⅜	"	x	⅜	"	1 00
	Brass	"	"	"	"	⅜	"	x	⅛	"	to	⅜	"	x	⅜	"	1 22
No. 505½,	Brass	"	"	"	"	½	"	x	¼	"	to	½	"	x	½	"	2 10
No. 504½A.	Brass	"	Ball	Joint	"	⅜	"	x	¼	"	to	½	"	x	⅜	"	2 80

Besides the Economy of Space and use of Small Covering Shells permitted by the use of these Combination Insulating Joints and Cut-outs, there is also Economy in Cost, as no efficient Fixture Cut-out can be bought for as low a price as we add to the price of the Insulating Joint for the attached Cut-out.



No. 501½



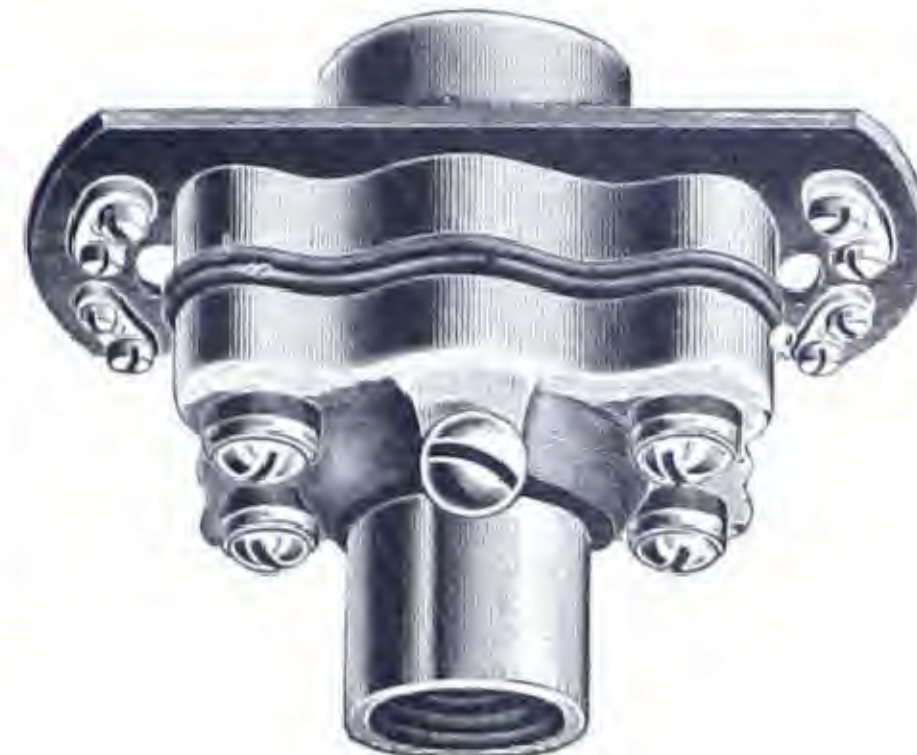
No. 502½



No. 503½



No. 505½



No. 504½

Fixture Flanges for Conduit Branch Boxes.



No. 572.



No. 573.

No. 572, Insulating Fixture Flange, without Cut-out, each	25c.
" 573, " " " " " " " "	55c.

We specially urge and recommend the use of these Insulating Flanges in conduit work where Fixture Supports are required. The No. 572 Flange affords a secure Insulated support for the Fixture, and permits it to be put up with a small flat Shell or Back Plate. Where it is used in connection with our Branch Boxes, it saves the expense of putting separate Fixture Blocks on the wall and avoids the danger of marring the wall in so doing. The No. 573, which is the same Flange combined with a Cut-out, speaks for itself. Electric Light Fixtures cannot be put up and provided with proper Cut-outs in any other way half as well or as cheaply. The Cut-out is below the surface of the wall or ceiling, out of the way and safely secured and hidden.

Iron Conduit Elbows for use with Gas Outlets.



No. 570.

This elbow is lined with a regular Conduit Sleeve, and arranged to slip on the end of Conduit Tube, and fastens with screws same as a Gas Outlet Elbow. We have designed this form for use where the electric light wires come out along side of a gas outlet, *i. e.*, for combination Fixtures. For this purpose it will be found to economize space, and at the same time afford an effective protection and fastening for the ends of the Conduit.

No. 570, Iron Conduit Outlet Elbow, for $\frac{3}{8}$ Conduit, 12c.

They are made Right and Left. In ordering, state whether flange should be Right, as in cut, or Left.



No. 511.

511.

Combined Reel and Blower.

For use in Wiring Underground Conduits.

To Order.

Solid Cable Joints.

Patented January 27, 1891.

Designed to effect a perfect mechanical and electrical connection between the ends of Line Wires or Cables in the neatest, quickest, cheapest and most effective manner.

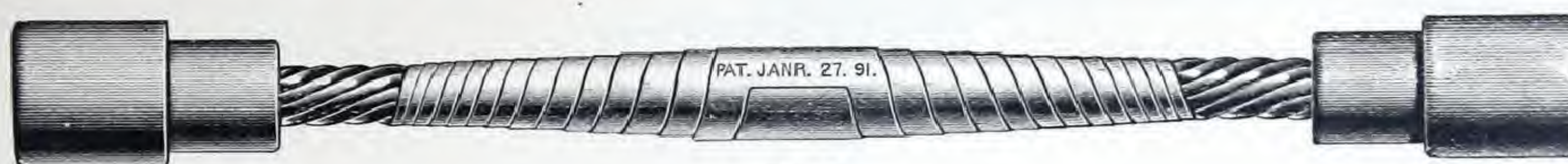


Fig. I.



Fig. II.

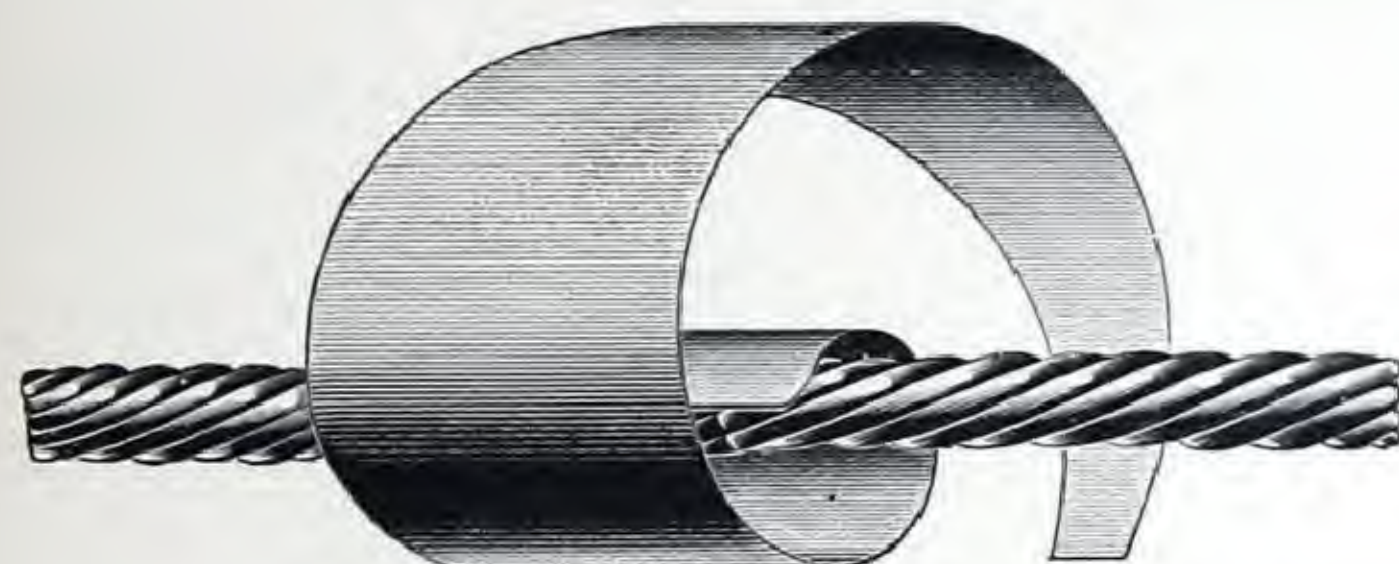


Fig. IV.

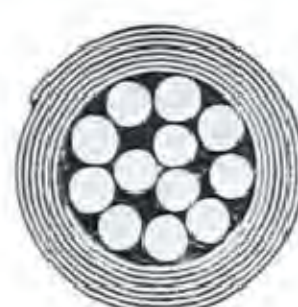
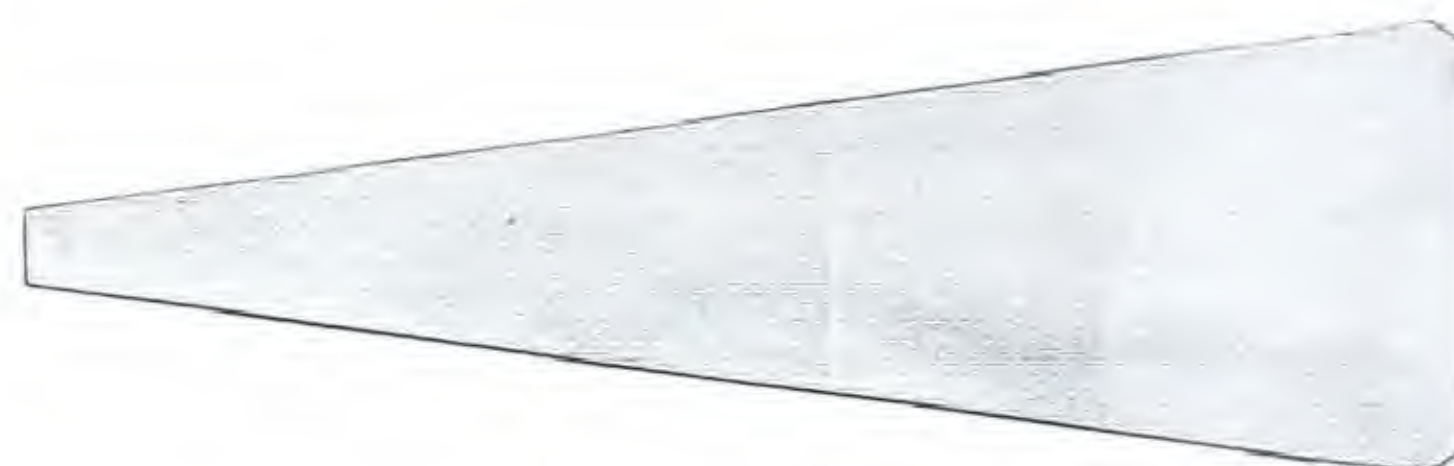


Fig. III.



No. 870.

In our No. 870, illustrated above, we offer the means of making a *Perfect Cable* or *Wire Joint*, and enumerate below some of its advantages over all other joints hitherto known.

Conductivity and tensile strength practically equal to the Wire or Cable itself.

Comparatively little increase in diameter even at its thickest part; of special importance in insulated conductors, and indispensable in conductors laid in Conduit tubes.

Admirable adaptation to use for overhead electric railway lines, as it offers no resistance to the passage of Trolley Wheels.

Equally Perfect Joint for Single Wires or Cables composed of any number of strands. Cheapness and Neatness. Ease and Quickness of application.

Limited number of Sizes necessary to carry in stock, as about Three Sizes will do for all sizes of conductors generally used.

Price List.

No. 870,	Size No. 1,	10 inches	x	2 1/2 inches	x	1/2 inch,	Tinned Copper Strip,	each,	50c.
" 870,	" " 2,	15	"	x 3	"	x 1/2	" " " "	"	60c.
" 870,	" " 3,	25	"	x 4	"	x 1/2	" " " "	"	70c.

Clamping Stand.

Designed for applying our Solid Cable Joint, No. 870



Description.

In order to make the cable or wire joint shown on the preceding page most conveniently and rapidly, we recommend the use of our No. 875 Clamping Stand, illustrated hereon, in accordance with the following

Directions:

- Fig. I, shows a finished Cable Joint.
" II, " " Single Wire Joint.
" III, " " Section of Cable Joint.
" IV, " " the copper strip at

the beginning of the operation of making the joint. The two ends of the cable or conductor to be joined are tightly clamped in the jaws of the stand as shown above, the ends being brought close to each other. The handle in the middle of the stand being given a turn, the ends are forced together. Then, by means of a soldering iron or torch, the broad end of the tinned copper strip, No. 870, is soldered fast, and the strip is then wrapped tightly around the conductor, acid being applied on each layer. The end of the joint or strip is then bound by iron wires about $\frac{3}{4}$ inch apart. The whole joint and conductor ends are then heated with a torch and soldered, after which the iron wires are removed, leaving a *Perfect Joint*.

No. 875, Iron Clamping Stand for making Joints . . . \$14 50

N. B. Electric Light Companies or Contractors desiring to make the strips for our Patent Joint themselves, will be licensed by us to do so on payment of a small Royalty.

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